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Annual Groundwater Sampling Report 2003

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Livingston, Montana

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The Burlington Northern and Santa Fe Railway Company

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May 2004

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11 May 2004

Ms. Amy Sivers
Project Officer
Montana Department of Environmental Quality
1100 North Last Chance Gulch
Helena, Montana 59601

Subject: Annual Sampling Report 2003
The Burlington Northern and Santa Fe Railway Company
Livingston Rail Yard
K/J 046021.16

Dear Ms. Sivers:

On behalf of The Burlington Northern and Santa Fe Railway Company (BNSF), Kennedy/Jenks Consultants is pleased to provide two copies of the attached Annual Groundwater Sampling Report 2003 – Livingston Rail Yard.

Please contact us at (253) 874-0555 if you have any questions or require additional information.

Very truly yours,

KENNEDY/JENKS CONSULTANTS

for John E. Norris
Project Manager

Enclosures

cc: Dave Smith, BNSF
Catherine Laughner, BKBH
Jane Amdahl, MTDEQ

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ANNUAL GROUNDWATER SAMPLING REPORT 2003
LIVINGSTON RAIL YARD
LIVINGSTON, MONTANA

Prepared for

THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY

Prepared by

KENNEDY/JENKS CONSULTANTS
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K/J 046021.16

May 2004

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EXECUTIVE SUMMARY

Kennedy/Jenks Consultants conducted annual and semiannual groundwater monitoring in June and November 2003, respectively, at the Burlington Northern (BN) Livingston Rail Yard (the site), in Livingston, Montana. Subsurface soil at the site has been characterized as containing diesel-range hydrocarbons. Diesel as light non-aqueous phase liquid (LNAPL) has been detected and monitored in the locations of former underground storage tanks (USTs), piping, and fueling areas. Halogenated, volatile organic compounds (VOCs) have been detected in groundwater around and east of the rail yard Electric Shop.

Annual and semiannual groundwater monitoring are conducted at the site to evaluate groundwater elevation and LNAPL thickness and to collect and analyze groundwater samples for VOCs. The purpose of monitoring is to evaluate the effectiveness of natural attenuation, the selected remedy for dissolved VOCs in groundwater. The chemicals of concern emphasized in this report are the halogenated hydrocarbons tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE).

Groundwater elevation measurements in June and November 2003 indicated a groundwater flow direction of east/northeast and a gradient of approximately 0.003 feet per foot (ft/ft). This is consistent with the results of previous investigations.

Measurable LNAPL was detected in 10 wells in June and 14 wells in November. In June, one well (L-87-8) contained LNAPL with a thickness greater than 1 foot. In November, three wells (L-87-8, HRO-21, and RW-6) contained LNAPL with a thickness greater than 1 foot. LNAPL with a thickness greater than 1 foot appears to be localized in a relatively small area near the rail yard's southern boundary, approximately 800 feet southeast of the Electric Shop.

Groundwater analytical results for June and November 2003 were consistent with results of previous monitoring events in showing a continuing, apparent decrease in halogenated hydrocarbon concentrations at the site. PCE and TCE concentrations exceeding MCLs were detected during both monitoring events in samples from a

relatively small number of wells located around and east of the Electric Shop. Overall, the results indicate that VOCs dissolved in groundwater are attenuating naturally at the site.

1.0 INTRODUCTION

This report documents the results of annual and semiannual groundwater monitoring conducted in June and November 2003, respectively, at the Livingston, Montana Rail Yard (the site). This report has been prepared by Kennedy/Jenks Consultants, on behalf of The Burlington Northern and Santa Fe Railway Company (BNSF), for the Montana Department of Environmental Quality (DEQ). Groundwater monitoring and reporting were conducted in general accordance with the Draft Statement of Work for Remedial Design/Remedial Action (SOW) (Tetra Tech 2002) and subsequent direction provided by the DEQ in a letter dated 24 April 2003 (Appendix A).

2.0 BACKGROUND

2.1 Site Location

The site is located in the northeastern portion of the city of Livingston, in Park County, Montana. It is in the southeast quarter of section 12 and the northeast quarter of Section 13, Township 2 South, Range 9, and in the southwest quarter of Section 7 and the northwest quarter of Section 18, Township 2 South, Range 10, east of the Montana Principal Meridian (Figure 1) (USGS 1981). The approximately 18-acre study area includes most of the rail yard and some adjacent properties between the Yellowstone River on the northeast and B Street on the southwest (Figure 2).

2.2 Hydrogeology

Hydrogeologic characteristics of the site were described in detail in the *Final Livingston Railyard Remedial Investigation Report* prepared by Envirocon, Inc. (Envirocon 1994). According to the report, the site is underlain by sandy gravel with occasional thin layers of silt or cobbles extending from the ground surface to depths ranging from approximately 25 to 50 feet below ground surface (bgs). This Quaternary alluvial unit, referred to by Envirocon as the unconfined Livingston Aquifer, unconformably overlies bedrock composed of shale, siltstone, and fine-grained sandstone. A map of the Livingston Aquifer is provided in Appendix B.

The depth to groundwater reportedly ranges from approximately 25 feet bgs at the southwestern end of the site, near B Street, to less than 5 feet bgs at the northeastern end, at the shoreline of the Yellowstone River. Groundwater flows northeast, toward the river, with an average gradient of approximately 0.003 feet per foot (ft/ft).

2.3 Site History

With the exception of an 18-month-long period between 1986 and 1987, the site has been operated as a rail yard nearly continuously since 1883. Chemicals handled at the site have included diesel and other petroleum hydrocarbons, chlorinated solvents,

alkaline cleaners, and asbestos. Releases at the site have contributed to the presence of petroleum hydrocarbons in subsurface soil and dissolved volatile organic compounds (VOCs) in groundwater. The groundwater sampling addressed in this report focuses on halogenated VOCs as the primary chemicals of potential concern.

The Burlington Northern Railroad Company (BNSF predecessor) began environmental investigations at the site in 1985 and has conducted site characterization and remediation activities, including regularly scheduled groundwater monitoring, since 1989. The process by which these activities is to proceed is specified in a modified partial consent decree (MPCD) entered into between The Burlington Northern Railroad Company and DEQ and signed by a representative of the United States District Court on 27 April 1990.

2.4 Groundwater Monitoring Purpose and Objectives

Monitored natural attenuation (MNA) is the selected remedy for dissolved VOCs in groundwater at the site. According to the SOW and subsequent guidance from DEQ, this remedy is to include semiannual monitoring of selected wells to obtain data for evaluating VOC concentration trends and developing a long-term monitoring strategy for the site. The remainder of this report summarizes all groundwater VOC monitoring data collected since 1989 and focuses on the analytical results and field monitoring data collected in June and November 2003.

3.0 ANNUAL AND SEMIANNUAL SAMPLING EVENTS

Kennedy/Jenks Consultants conducted annual and semiannual monitoring at the site in 2003 based on a sampling schedule approved by the DEQ in 1996 and modifications to the schedule as specified in the DEQ letter dated 24 April 2003 (Appendix A). In general, DEQ's 2003 letter requested that wells be removed or added from the sampling program to better define the extent of dissolved VOCs in groundwater, and that the sampling schedule should be modified to evaluate high groundwater table conditions. Wells scheduled for sampling during each of the events are listed in Table 1 along with explanations for cases where wells were not sampled or monitored as planned.

With the exception of one domestic well located several thousand feet east of the rail yard (O'Hara well), all sampling locations are shown on Figure 2.

DEQ was notified in advance of each sampling round in letters dated 5 June 2003 and 31 October 2003. A DEQ representative was not present during either sampling round and no split samples were collected.

3.1 Sampling Procedures

Monitoring tasks during the annual and semiannual events included measuring the groundwater elevation and light non-aqueous phase liquid (LNAPL) thickness and collecting groundwater samples at the monitoring well locations listed in Table 1.

Sampling procedures used in 2003 were, with one exception, consistent with procedures used during previous years and followed specifications in the Interim Remedial Measures Work Plan (Envirocon 1989). The procedural exception included measuring groundwater depths and LNAPL thickness in all wells in as short a time as possible prior to sampling to obtain a "snapshot" of site conditions. During previous events, these measurements were taken in conjunction with sampling over multiple days.

3.1.1 Groundwater Elevation and LNAPL Thickness Measurements

The first monitoring task conducted after mobilizing to the site consisted of measuring the groundwater elevation and LNAPL thickness in all scheduled monitoring wells. At each well, the cap was removed and the well was left open for several minutes to allow the water level to stabilize. An electronic, oil/water interface probe was then slowly lowered into the well casing until contacting groundwater or LNAPL. The depth of the top of each fluid was measured and recorded to the nearest 0.01 foot using a surveyed mark on the top of the well casing.

After use at each well, the oil/water interface probe was decontaminated using a solution of phosphate-free detergent, potable water, and distilled water.

3.1.2 Groundwater Purging and Sampling

Groundwater samples were collected from water supply wells using an available tap and from monitoring wells using either a dedicated bladder pump or disposable bailer. The sampling technique used at each well is listed in Table 2.

At each domestic well, the cold-water tap closest to the wellhead was opened to the maximum extent possible and water was allowed to flow for several minutes to evacuate any stagnant water from the upstream piping. During this purging step, water quality parameters including temperature, pH, specific conductance, and dissolved oxygen (DO) were measured at regular intervals. Purging was continued until at least three consecutive measurements for temperature, pH, and specific conductance stabilized. After stabilization, the flow rate was reduced to approximately 0.1 to 0.3 liter per minute (L/m) and sample bottles for laboratory analysis were filled.

At each monitoring well, purging and sampling were conducted with either a dedicated bladder pump or disposable bailer. Purging was continued until at least three well-casing volumes of groundwater were removed and until water quality parameters (recorded after removal of each casing volume) stabilized. In all cases, samples for laboratory analysis were collected immediately after purging.

Samples were collected in laboratory-supplied, pre-preserved (1 molar hydrochloric acid), 40-milliliter, glass, volatile organic analysis (VOA) vials fitted with Teflon-lined caps. When filled, the bottles were labeled and carefully packaged in a cooler with enough ice to maintain the sample temperature at or below 4 degrees Celsius (^oC). Sampling personnel documented each sample, the date and time of collection, and required analyses on a chain-of-custody form.

3.1.2.1 Quality Control Sampling

Quality control samples submitted for analysis during each sampling event included field blind duplicates and transport blanks. In June and November, field blind duplicate samples were collected at a rate of 3 and 10 percent, respectively. The duplicate samples were collected at the same time as primary samples by filling two sets of sample bottles and then assigning a fictitious sample identification number to one of the sets. Transport blanks, prepared by the laboratory using deionized water, were also submitted for analysis at a rate of 6 and 10 percent, respectively. The transport blanks were prepared at the time bottles were ordered and accompanied bottles and sample shipments throughout each monitoring event.

3.2 June 2003 Annual Monitoring Event

Kennedy/Jenks Consultants and Envirocon personnel conducted the 2003 annual monitoring event between 24 June and 2 July (late June, in contrast to the scheduled month of May), as requested by DEQ, to evaluate hydrologic conditions during a period of seasonal high groundwater. Sampling personnel attempted to measure the groundwater elevation and LNAPL thickness in all wells and to collect samples from 33 wells, including those requested by DEQ. As shown in Table 1, one of the wells scheduled for monitoring and/or sampling (Well 8) had been destroyed in the months preceding June 2003, and several wells were either inaccessible or could not be found (covered with track ballast). Other changes from previous sampling events included the following:

- Two additional wells, MW-11 and MW-12, were sampled.
- Domestic water wells Depuy, O'Hara, and Parisi, and monitoring wells 90-6, 89-8, 11, and MW-10 were added to the list of wells to be sampled for one event, as requested by DEQ's letter dated 24 April 2003.
- Monitoring wells 1, 2, 4, and 5 and the B Street water supply well were removed from the list of wells to be sampled, as requested by DEQ's letter dated 24 April 2003.
- Monitoring wells LPZ-150, HR-2W, and HR-2D were measured for groundwater elevation and LNAPL thickness.

It should be noted that data described in this report for monitoring well MW-10 might not be representative of the Livingston Aquifer. While conducting monitoring activities, sampling personnel encountered groundwater in the well at 5.78 feet below the top of the well casing (BTOC) and an obstruction (roots or silt) at approximately 7 to 8 feet BTOC. According to the well's owner, who was interviewed during sampling, the original depth of the well was approximately 15 feet BTOC.

Monitoring well L-87-2 was mistakenly sampled twice during the annual sampling event, once on 26 June and again on 27 June. However, based on the QA/QC review of analytical data, the sample collected on the 27th did not meet QA/QC standards, whereas the results for the sample collected on the 26th appear to be valid and acceptable for use. Therefore, data associated with the 26 June sample are presented in this report.

In total, 32 primary groundwater samples, 1 field blind duplicate, and 2 transport blanks were submitted to Energy Laboratories, Inc. (Energy) in Billings, Montana, for analysis of VOCs by EPA Method 624.

3.3 November 2003 Semiannual Monitoring Event

Kennedy/Jenks Consultants conducted the 2003 semiannual monitoring event between 4 and 7 November. Sampling personnel attempted to measure groundwater elevation and LNAPL thickness in all wells and collect samples from 12 wells as specified in Table 1. However, one of the wells (89-9) was not accessible because of locomotive

repair activities. It is anticipated that the well will be accessible during the next sampling event in 2004. Wells that were inaccessible for groundwater elevation and LNAPL thickness measurements in June were still inaccessible in November. Other changes from previous sampling events included the following:

- Wells LB-4, 6, 7, LG-11, and LG-12 could not be located because of the presence of snow and ice.
- Well RW-2 and the domestic well at the Rainbow Motel were inaccessible for measuring the groundwater elevation and LNAPL thickness.

In total, 11 primary groundwater samples, one field blind duplicate, and one transport blank were submitted to North Creek Analytical Services, Inc. (NCA) in Bothell, Washington, for analysis of VOCs. Three of the primary samples (94-1, 94-2, and 87-8) were analyzed using EPA Method 524.2. The remaining samples were analyzed using EPA Method 8260B. EPA Method 8260B is comparable to EPA Method 624 and was requested because NCA does not use the latter method. As during earlier monitoring events (e.g., May 2002), EPA Method 524.2 was used in November for samples requiring low reporting limits. During the November sampling event, NCA failed to analyze the transport blank that accompanied the only sample shipment.

4.0 FIELD MEASUREMENT AND ANALYTICAL RESULTS

4.1 Field Measurements

Field measurements during the annual and semiannual monitoring events included groundwater elevation, LNAPL thickness, and water quality parameters including temperature, pH, specific conductance and DO. The measurements were recorded on sampling forms that are provided in Appendix C.

4.1.1 Groundwater Elevation, Flow Direction, and Gradient

In June and November, respectively, the groundwater elevation and LNAPL thickness were measured at selected wells using a Solinst® Interface Probe and a Heron® H.01L Interface Meter.

Static groundwater depth and elevation measurements for June and November are summarized on Tables 3 and 4, respectively. The groundwater elevations were corrected for monitoring wells containing LNAPL by multiplying the LNAPL thickness by a density factor of 0.88 and adding the result to the static groundwater elevation.

Groundwater elevations measured in June ranged from 4,444 to 4,484 feet above mean sea level (msl). As shown on Figure 3, the apparent groundwater flow direction in June was northeasterly on both sides of the Yellowstone River. The average gradient was estimated to be 0.003 ft/ft.

Groundwater elevations measured in November were up to 2 feet lower than elevations measured in June and ranged from 4,442 to 4,483 feet msl. As shown on Figure 4, the groundwater flow direction and gradient in November were similar to the flow direction and gradient observed in June.

4.1.2 LNAPL Thickness

The LNAPL thickness at selected wells was measured using the same meters used for measuring the depth to groundwater. The LNAPL thickness measurements for June and November are summarized in Tables 3 and 4, respectively. Historical LNAPL thickness

measurements recorded between May 1989 and November 2003 are summarized in Table 5.

During the June monitoring event, LNAPL thickness was measured at 65 monitoring wells, including those wells requested for monitoring by the DEQ. The June LNAPL measurements, summarized in Table 3 and depicted on Figure 5, show that 10 wells contained measurable LNAPL layers ranging from 0.07 to 1.33 feet thick. Monitoring well L-87-8 was the only well measured in June with an LNAPL thickness greater than 1 foot (1.33 feet). LNAPL was not detected in any wells outside of the area shown on Figure 5.

In November, LNAPL thickness and groundwater elevation measurements were recorded at 51 monitoring wells. The November measurements are summarized in Table 4 and depicted on Figure 6. Several of the wells that had been monitored in June were not accessible in November because of snow, ice, or other obstructions.

Fourteen of the 51 wells measured in November contained measurable LNAPL ranging from 0.01 to 1.78 feet thick. Eleven of these wells had less than 0.5 foot of LNAPL. Wells L-87-8, HRO-21, and RW-6 contained LNAPL with a thickness greater than 1 foot (1.78, 1.57, and 1.10 feet, respectively). Four wells that are not depicted on Figure 6 (89-1, 89-10, LS-11, and L-87-3) contained approximately 0.01 foot of LNAPL.

4.1.3 Water Quality Parameters

During groundwater purging and sampling in June and November, water quality parameters were monitored and recorded at each well location. An YSI 600XL Multi-Parameter Water Quality Monitor® and YSI 556 Multi Probe System® were used to measure temperature, pH, specific conductance, and DO during the June and November sampling events, respectively. Parameter values were recorded after purging each well-casing-volume of groundwater was removed and until parameter readings stabilized. The water quality measurements were recorded on field sampling forms that are provided in Appendix C and are summarized in Tables 6 and 7.

In June, groundwater temperature measurements ranged from 8.82 to 13.90 °C. In November, temperature values were similar to those measured in June and ranged from 9.22 to 12.44 °C. Groundwater pH measurements in June ranged from 6.49 to 7.52 and 6.86 to 7.66 in November. Specific conductance measurements in June [528 to 1,088 microsiemens per centimeter (µS/cm)] were slightly higher than those measured in November (337 to 739 µS/cm). In contrast, DO saturation values in June (0 to 10 percent) were lower than in November (2 to 63 percent).

4.2 Laboratory Analytical Results

Analytical results for VOCs are discussed below, with emphasis on the halogenated hydrocarbons PCE, TCE, and cis-1,2-DCE. All VOCs detected in 2003 and during previous monitoring events are summarized in Table 8. Analytical reports prepared by the laboratories are provided in Appendix D.

4.2.1 June 2003 Annual Analytical Results

In June/July 2003, Energy analyzed groundwater samples from 32 monitoring wells using EPA Method 624. The analytical results for the halogenated hydrocarbons PCE, TCE, and Cis-1,2-DCE are depicted on Figures 7, 8, and 9.

Detectable PCE concentrations in samples collected in June 2003 ranged from an estimated value below the laboratory reporting limit [0.21 micrograms per liter (µg/L)] to a maximum of 148 µg/L. In most cases, the values for June show a continuation in the overall trend of decreasing PCE concentrations over time at the site. Fifteen of the samples collected in June contained PCE concentrations exceeding the National Primary Drinking Water Regulations maximum contaminant level (MCL) of 5 µg/L.

Figure 7 shows the apparent PCE distribution in June 2003, which was similar to the distribution measured during previous sampling rounds. The highest detected PCE concentrations were measured in samples collected from wells located east of the Electric Shop.

PCE was also detected in a sample collected from a domestic well located several thousand feet east of the site (the O'Hara well), which was sampled in June in response to a request from DEQ. The O'Hara well sample contained PCE at a concentration of 0.90 µg/L, which is below the MCL. The O'Hara well was also sampled by the DEQ in 1997, at which time the PCE concentration was 1.5 µg/L.

TCE was detected in 15 of the samples collected in June 2003 at concentrations ranging from an estimated value below the laboratory reporting limit (0.45 µg/L) to 5.1 µg/L. These concentrations are similar to concentrations measured in 2002 and appear to be consistent with an overall apparent decrease in the TCE concentration at the site since 1989. None of the June sample analytical results exceeded the MCL of 5 µg/L for TCE. However, one sample (L-88-10) contained a TCE concentration (5.1 µg/L) at the MCL. The distribution of TCE concentrations measured at the site in June is shown on Figure 8.

TCE was not detected in the O'Hara well at a concentration greater than the laboratory reporting limit of 0.50 µg/L.

Cis-1,2-DCE was detected in 13 locations in June at concentrations ranged from an estimated value below the laboratory reporting limit (0.45 µg/L) to a maximum of 19 µg/L, which is below the MCL of 70 µg/L.

As shown on Figure 9, the highest cis-1,2-DCE concentrations measured in June were in samples collected from wells 89-4 and L-87-2. Cis-1,2-DCE was not detected in the sample collected from the O'Hara well.

4.2.2 November 2003 Semiannual Analytical Results

During the semiannual monitoring event in November 2003, 11 groundwater samples were submitted to NCA for analysis of VOCs by EPA methods 524.2 or 8260B. The sampling scope was to include collection and analysis of 12 samples, but one of the wells was inaccessible. The analytical results are summarized in Table 8 and on Figures 10, 11, and 12.

In November, PCE was detected in nine samples at concentrations ranging from 0.750 to 113 µg/L, TCE was detected in eight of the samples at concentrations ranging from 0.630 µg/L to 5.83 µg/L, and cis-1,2-DCE was detected in seven samples at concentrations ranging from 0.900 to 14.8 µg/L. Seven of the samples contained PCE at a concentration exceeding the MCL of 5 µg/L and one sample contained TCE at a concentration exceeding the MCL of 5 µg/L. None of the samples contained cis-1,2-DCE at a concentration exceeding the MCL of 70 µg/L.

4.3 Quality Assurance/Quality Control

Field quality assurance/quality control (QA/QC) procedures included adherence to proper chain-of-custody protocols, collection of field blind duplicate samples, and use of transport blank samples. Proper chain-of-custody protocols were followed at all times during the June and November sampling events. Energy and NCA received samples intact, and sample temperatures, at the time of submission, were within acceptable ranges. One field blind-duplicate sample was collected during each sampling event, and one transport blank sample was included in every cooler submitted to the analytical laboratory. Energy analyzed two of the transport blank samples submitted in June; no analytes were detected. In November, one transport blank was submitted to NCA, but the sample was not analyzed.

Upon receipt of the analytical results, Kennedy/Jenks Consultants conducted a focused QA/QC review of the data in general accordance with applicable sections of the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (US EPA 2002). The focused evaluation consisted of reviewing the following:

- Holding times
- Laboratory method blank sample results
- Matrix spike/matrix spike duplicate (MS/MSD) sample results
- Laboratory control sample (LCS) results

- Laboratory duplicate sample results
- Field blind duplicate sample results.

Based on the focused QA/QC review, data for the June and November sampling events generally met requirements for each of the above criteria and are valid and acceptable for use, with the following qualifications:

The June MS/MSD results indicated that the MS recovery for bromomethane in the sample from well 11 and the MSD recovery for bromomethane in the sample from well 89-9 slightly exceeded the recovery limits. Likewise, the bromomethane spikes in LCS B03070075 and LCS B03070216 were outside of recommended controls. The laboratory reported that other compounds spiked into the samples might have caused interference with recovery of bromomethane. Furthermore, bromomethane has not been detected in any of groundwater samples and is not considered a chemical of potential concern.

The June MS/MSD prepared from the sample collected from well 11 indicated an out-of-limits relative percent difference (RPD) for 1,2,3-trichloropropane. However, the findings with respect to relative percent difference for this compound do not adversely affect the validity of the analytical results for the purposes of comparison to regulatory standards for water quality.

In November, the control spike duplicate for LCS B3K0273 indicated an excessive RPD for 1,2-Dibromo-3-chloropropane. According to NCA, the RPD does not represent an out-of-control condition for the batch. As other QA/QC criteria were met, no qualifiers need be applied to the analytical results.

Laboratory QA/QC sample analytical results are included with the laboratory analytical reports provided in Appendix D.

5.0 SUMMARY

Kennedy/Jenks Consultants conducted annual and semiannual groundwater monitoring at the site in June and November 2003, respectively. Monitoring included measuring groundwater elevations and LNAPL thickness and collecting groundwater samples for VOC analysis, with emphasis on evaluation of the halogenated hydrocarbons PCE, TCE, and cis-1,2-DCE. Similar groundwater monitoring activities have been conducted at the site since 1989.

Field measurements conducted in 2003 indicated the presence of measurable LNAPL in 10 wells in June and 14 wells in November. One of the wells measured in June and three of the wells measured in November contained LNAPL at a thickness greater than 1 foot.

Groundwater analytical results for June and November 2003 were consistent with results of previous monitoring events in showing a continuing, apparent decrease in halogenated hydrocarbon concentrations at the site. PCE and TCE concentrations exceeding MCLs were detected during both monitoring events in samples from a relatively small number of wells located around and east of the Electric Shop. However, overall, the results indicate that VOCs dissolved in groundwater are attenuating naturally over time at the site.

6.0 REFERENCES

Envirocon. 1994. Final Livingston Rail yard Remedial Investigation Report. March 10, 1994.

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United States Environmental Protection Agency. 2002. USEPA Contract Laboratory National Functional Guidelines for Organic Data Review. USEPA 540-R-01-008. July 2002.

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Tables

TABLE 1

GROUNDWATER MONITORING SCHEDULE
BN Livingston Facility

Sample Locations[a]	Semiannual Sample (November)	Annual Sample (June)	Water Depth and LNAPL Thickness Measurements	Comments
LB-4			X	Inaccessible in November
LS-6			X	
LS-11		X[b]	X	
L-87-2	X	X	X	
L-87-3		X	X	
L-87-4			X	
L-87-5	X	X	X	
L-87-7			X	
L-87-8	X	X	X	
L-88-9			X	
L-88-10	X	X	X	
L-88-10		X	X	
1		X	X	Not to be sampled according to 4/2003 DEQ letter.
2		X	X	Not to be sampled according to 4/2003 DEQ letter.
3		X	X	
7		X	X	Not to be sampled according to 4/2003 DEQ letter.
5		X	X	Not to be sampled according to 4/2003 DEQ letter.
5		X	X	Inaccessible in November. Possibly destroyed
7			X	Inaccessible in November
8		X	X	Destroyed by a snow plow.
89-1			X	
89-2		X	X	
89-3	X	X	X	
89-4	X	X	X	
89-6		X	X	
89-7			X	
89-3	X	X	X	Inaccessible in November
89-10		X	X	
90-2B			X	
90-3	X	X	X	
92-1	X	X	X	
92-2	X	X	X	
92-3			X	
92-4		X	X	
94-1	X	X	X	
94-2	X	X	X	
95-1			X	
B-Street		X	X	Not to be sampled according to 4/2003 DEQ letter Operating well
Rainbow		X	X	Inaccessible in November
RW-1			X	
RW-2			X	Inaccessible in November
RW-3			X	
RW-4			X	
RW-5			X	Not measured; well is in a confined space
RW-6			X	
RW-7			X	
RW-9			X	
HRO-6			X	
HRO-7			X	
HRO-9			X	
HRO-13			X	
HRO-14			X	assumed to be destroyed
HRO-13			X	assumed to be destroyed
HRO-13			X	
HRO-14			X	assumed to be destroyed
HRO-15			X	assumed to be destroyed
HRO-15			X	assumed to be destroyed
HRO-15			X	assumed to be destroyed
HRO-24			X	
HRO-24			X	
HRO-22			X	
HRO-23			X	
HRO-24			X	
LPZ-100			X	Dry- Measured LPZ-150 in June and November
LG-11			X	Inaccessible in November
LG-12			X	Inaccessible in both June and November
Additional wells suggested by Montana DEQ and BNSF[c]				
LPZ-150			X	LPZ-100 was dry; substituted with LZP-150
90-6		X	X	
89-8		X	X	
11		X	X	
MW-10		X	X	
Depuy		X	X	Not measured; well has not been surveyed
O'Hara		X	X	Sample collected at tap in building
Parisi		X	X	Sample collected at tap in building
MW-11		X	X	
MW-12		X	X	Not measured; well has not been surveyed
HR-2W			X	
HD-2D			X	

Notes:

(a) The water level and LNAPL thickness are measured at all well locations during the semiannual and annual events.

(b) "X" indicates that a groundwater sample is to be collected and analyzed for VOCs.

(c) Additional wells were measured for water level and product thickness and/or sampled during the annual monitoring event.

TABLE 2

GROUNDWATER SAMPLES COLLECTED IN JUNE AND NOVEMBER 2003
BN Livingston Facility

Sample Number	Sample Location	Sample Date	Sampling Method	Analytical Method[(a)]
B03070075-001	90-3	6/26/2003	dedicated bladder pump	624
B03070075-002	89-9	6/26/2003	dedicated bladder pump	624
B03070075-003	89-8	6/26/2003	disposable bailer	624
B03070075-004	89-3	6/26/2003	dedicated bladder pump	624
B03070075-005	90-6	6/26/2003	disposable bailer	624
B03070075-006	92-1	6/26/2003	dedicated bladder pump	624
B03070075-007	L-87-5	6/26/2003	disposable bailer	624
B03070075-008	L-87-2	6/27/2003	dedicated bladder pump	624
B03070075-009	Rainbow	6/27/2003	tap- private well	624
B03070075-010	MW-12	6/27/2003	disposable bailer	624
B03070075-011	89-2	6/27/2003	dedicated bladder pump	624
B03070075-012	O'Hara	6/27/2003	tap- bathroom	624
B03070075-013	L-87-3	6/27/2003	dedicated bladder pump	624
B03070075-014	89-6	6/27/2003	disposable bailer	624
B03070075-015	L-88-10	6/27/2003	dedicated bladder pump	624
B03070075-016	L-88-13	6/27/2003	dedicated bladder pump	624
B03070075-017	Parisi	6/27/2003	tap- kitchen	624
B03070075-018	L-87-2	6/27/2003	dedicated bladder pump	624
B03070075-019	Trip Blank	6/26/2003	Energy Laboratories, Inc.	624
B03070216-001	11	6/30/2003	disposable bailer	624
B03070216-002	11 duplicate	6/30/2003	disposable bailer	624
B03070216-003	LS-11	6/30/2003	dedicated bladder pump	624
B03070216-004	Depuy	6/30/2003	disposable bailer	624
B03070216-005	L-87-8	6/30/2003	dedicated bladder pump	624
B03070216-006	3	6/30/2003	disposable bailer	624
B03070216-007	6	6/30/2003	dedicated bladder pump	624
B03070216-008	89-10	6/30/2003	disposable bailer	624
B03070216-009	92-4	6/30/2003	dedicated bladder pump	624
B03070216-010	MW-11	7/1/2003	disposable bailer	624
B03070216-011	89-4	7/1/2003	dedicated bladder pump	624
B03070216-012	94-2	7/1/2003	dedicated bladder pump	624
B03070216-013	94-1	7/1/2003	dedicated bladder pump	624
B03070216-014	92-2	7/1/2003	dedicated bladder pump	624
B03070216-015	MW-10	7/2/2003	disposable bailer	624
B03070216-016	Trip Blank	6/30/2003	Energy Laboratories, Inc.	624
B3K0273-01	94-2	11/6/2003	dedicated bladder pump	524.2
B3K0273-02	90-3	11/6/2003	dedicated bladder pump	8260B
B3K0273-03	90-3 duplicate	11/6/2003	dedicated bladder pump	8260B
B3K0273-04	94-1	11/6/2003	dedicated bladder pump	524.2
B3K0273-05	92-1	11/6/2003	dedicated bladder pump	8260B
B3K0273-06	L-87-5	11/7/2003	disposable bailer	8260B
B3K0273-07	89-3	11/7/2003	dedicated bladder pump	8260B
B3K0273-08	L-87-2	11/7/2003	dedicated bladder pump	8260B
B3K0273-09	89-4	11/7/2003	dedicated bladder pump	8260B
B3K0273-10	L-87-8	11/7/2003	dedicated bladder pump	524.2
B3K0273-11	L-88-10	11/7/2003	dedicated bladder pump	8260B
B3K0273-12	92-2	11/7/2003	dedicated bladder pump	8260B

Note:

(a) Analytical Methods:

'- VOCs analyzed by EPA Method 624, 524.2 or 8260B.

TABLE 3

WATER LEVEL AND LNAPL THICKNESS MEASUREMENTS
JUNE 2003 MONITORING EVENT
BN Livingston Facility

Location	Date Measured	Depth to LNAPL (feet BTOC)[a,b]	Depth to groundwater (feet BTOC)[a,b]	LNAPL Thickness (feet)	TOC Elevation (feet)	Groundwater Elevation (feet)[c]	Screened Interval (feet bgs)[d]
LB-4	6/25/2003	21.18	21.37	0.19	4,495.72	4,474.52	17-27
LS-6	6/26/2003	ND[e]	19.96		4,503.79	4,483.83	15-25
LS-11	6/24/2003	ND	4.73		4,463.68	4,458.95	3.5-13.5
L-87-2	6/25/2003	ND	23.92		4,494.94	4,471.02	21-31
L-87-3	6/24/2003	ND	22.37		4,485.95	4,463.58	17-32.6
L-87-4	6/25/2003	21.58	21.65	0.07	4,497.71	4,476.12	17-27
L-87-5	6/25/2003	ND	23.14		4,496.41	4,475.33	17-27
L-87-7	6/25/2003	22.23	22.76	0.53	4,496.09	4,473.80	17-27
L-87-8	6/25/2003	21.49	22.82	1.33	4,493.37	4,471.72	17-27
L-88-9	6/26/2003	ND	20.51		4,504.49	4,483.98	17-27
L-88-10	6/25/2003	ND	21.77		4,483.56	4,461.79	19.4-29.4
L-88-13	6/25/2003	ND	23.20		4,491.39	4,468.19	31.5-41.5
4	6/25/2003	ND	16.98		4,491.77	4,474.79	15.8-25.8
2	6/25/2003	ND	17.46		4,489.68	4,472.22	18-28
3	6/25/2003	ND	17.64		4,488.26	4,470.62	14.7-24.7
4	6/24/2003	ND	7.91		4,479.51	4,471.60	5-15
5	6/24/2003	ND	3.60		4,470.39	4,466.79	3.2-13.2
6	6/25/2003	ND	3.48		4,468.42	4,464.94	3.2-13.2
4	6/25/2003	ND	17.38		4,478.02	4,460.64	16-31
89-1	6/24/2003	ND	2.79		4,461.59	4,458.80	20-30
89-2	6/24/2003	ND	21.08		4,483.59	4,461.51	18-38
89-3	6/26/2003	ND	17.48		4,496.10	4,478.62	14-34
89-4	6/24/2003	ND	19.85		4,489.86	4,470.01	23-33
89-6	6/24/2003	ND	22.66		4,493.35	4,470.69	27-37
89-7	6/25/2003	ND	26.39		4,498.64	4,472.25	21-31
89-8	6/25/2003	ND	19.60		4,496.41	4,476.81	14-34
89-10	6/24/2003	ND	23.01		4,484.07	4,461.06	22-32
90-2B	6/25/2003	ND	17.99		4,482.32	4,464.33	12.5-22.5
90-3	6/26/2003	ND	6.92		4,463.32	4,456.40	5-15
92-1	6/25/2003	ND	22.46		4,498.51	4,476.05	23.8-33.8
92-2	6/24/2003	ND	5.26		4,461.29	4,456.03	6-25
92-3	6/25/2003	ND	21.44		4,500.59	4,479.15	25-35.5
92-4	6/24/2003	ND	19.72		4,490.23	4,470.51	24.8-34.8
94-1	6/24/2003	ND	8.01		4,452.09	4,474.08	27-37
94-2	6/24/2003	ND	4.80		4,459.05	4,454.25	27.5-37.5
99-1	6/25/2003	ND	20.64		4,499.06	4,478.42	15-32
B-Street	NM[f]	NM - operating well			not surveyed	—[g]	NA[h]
Rainbow	6/24/2003	ND	5.44		4,465.95	4,460.51	NA
RW-1	6/25/2003	ND	22.41		4,494.53	4,472.12	NA
RW-2	6/25/2003	ND	21.08		4,493.29	4,472.21	NA
RW-3	6/25/2003	ND	22.61		4,495.65	4,473.04	NA
RW-4	6/25/2003	21.01	21.57	0.56	4,493.85	4,472.77	NA
RW-6	6/25/2003	20.98	21.56	0.58	4,491.10	4,470.05	NA
RW-1	6/25/2003	ND	22.31		4,496.37	4,474.06	13.5-28.5
RW-9	6/25/2003	ND	22.41		4,492.99	4,470.58	15-30
HRO-6	6/25/2003	22.39	22.62	0.23	4,497.76	4,475.34	18-28
HRO-7	6/25/2003	22.44	22.79	0.35	4,497.81	4,475.33	15-25
HRO-9	6/25/2003	23.48	23.51	0.03	4,484.88	4,461.40	15-30
HRO-10	6/25/2003	ND	24.76		4,496.27	4,471.51	14-34
HRO-13	6/25/2003	ND	22.12		4,494.73	4,472.61	18.5-38.5
HRO-20	6/25/2003	ND	22.96		4,497.01	4,474.05	15.5-25.5
HRO-24	6/25/2003	21.38	21.38		4,493.15	4,471.77	14.5-24.5
HRO-22	6/25/2003	ND	22.77		4,493.35	4,470.58	15-25
HRO-23	6/25/2003	ND	22.56		4,493.11	4,470.55	15-25
HRO-24	6/25/2003	ND	22.64		4,496.73	4,474.09	15-25
LPZ-100	6/25/2003	dry	dry		not surveyed	---	NA
LG-11	6/24/2003	ND	16.69		4,500.28	4,483.59	12.1-22.1
LG-12	6/27/2003	Could not access well.			4,500.45	---	11.1-21.1
LPZ-100	6/25/2003	ND	23.59		not surveyed	---	NA
99-8	6/25/2003	ND	20.48		not surveyed	---	NA
89-8	6/25/2003	ND	18.32		not surveyed	---	NA
11	6/24/2003	ND	23.24		not surveyed	---	NA
MW-10	7/2/2003	ND	5.78[i]		not surveyed	---	NA
DePuy	6/30/2003	Not measured			not surveyed	---	NA
O'Hara	6/27/2003	Not measured-could not access well			not surveyed	---	NA
Parisis	6/27/2003	Not measured-could not access well			not surveyed	---	NA
MW-11	7/1/2003	ND	21.64		not surveyed	---	NA
MW-12	6/27/2003	ND	20.65		not surveyed	---	NA
HR-2W	6/25/2003	23.14	23.23	0.09	4,494.28	4,471.13	NA
HR-2D	6/25/2003	ND	22.25		not surveyed	---	NA

Notes:

(a) Water depth and LNAPL thickness measured using a Solinst Interface Probe.
(b) "BTOC" = below top of casing.
(c) Where LNAPL was present, the groundwater elevation was corrected using the following formula:
Air-Water Table Elevation = Measured Elevation + (Product Thickness x 0.88)
(d) "bgs" = below the ground surface.
(e) "ND" = LNAPL was not detected in the well casing.
(f) "NM" = not measured.
(g) "---" = not applicable.
(h) "NA" = Not Available.
(i) The groundwater depth measurement may not be representative because of an obstruction present in the well at 7 to 8 feet BTOC.

TABLE 4

WATER LEVEL AND LNAPL THICKNESS MEASUREMENTS
NOVEMBER 2003 MONITORING EVENT
BN Livingston Facility

Location	Date Measured	Depth to LNAPL (feet BTOC)$^{(a,b)}$	Depth to groundwater (feet BTOC)$^{(a,b)}$	LNAPL Thickness (feet)	TOC Elevation (feet)	Groundwater Elevation (feet)$^{(c)}$	Screened Interval (feet bgs)$^{(d)}$
LB-4	11/5/2003	NM$^{(e)}$ - Inaccessible			4,495.72	---$^{(f)}$	17-27
LS-6	11/6/2003	ND$^{(g)}$	21.00		4,503.79	4,482.79	15-25
LS-11	11/4/2003	8.08	8.09	0.01	4,489.68	4,455.60	3.5-13.5
L-87-2	11/5/2003	ND	25.19		4,494.94	4,469.75	21-31
L-87-3	11/4/2003	25.54	25.55	0.01	4,485.95	4,460.41	17-32.6
L-87-4	11/4/2003	22.47	23.01	0.54	4,497.71	4,475.18	17-27
L-87-5	11/5/2003	ND	23.97		4,498.47	4,474.50	17-27
L-87-7	11/4/2003	23.20	23.53	0.33	4,496.09	4,472.85	17-27
L-87-8	11/4/2003	22.60	24.38	1.78	4,493.37	4,470.56	17-27
L-88-9	11/5/2003	ND	21.44		4,504.49	4,483.05	17-27
L-88-10	11/4/2003	ND	24.04		4,483.56	4,459.52	19.4-29.4
L-88-13	11/4/2003	ND	24.48		4,491.39	4,466.91	31.5-41.5
1	11/4/2003	ND	17.82		4,491.77	4,473.95	15.8-25.8
2	11/5/2003	ND	18.53		4,489.68	4,471.15	15-25
3	11/5/2003	ND	18.77		4,488.26	4,469.49	14.7-24.7
4	11/5/2003	ND	8.75		4,479.51	4,470.76	5-15
5	11/5/2003	ND	5.24		4,470.39	4,465.15	3.2-13.2
6	11/4/2003	NM - inaccessible			4,468.42	---	3.2-13.2
7	11/4/2003	NM - inaccessible			4,478.02	---	16-31
89-1	11/4/1900	5.52	5.53	0.01	4,461.59	4,458.67	20-30
89-2	11/4/2003	ND	24.42		4,483.09	4,458.67	18-38
89-3	11/7/2003	ND	18.32		4,496.10	4,477.78	14-34
89-4	11/4/2003	21.03	21.04	0.01	4,489.68	4,468.98	23-33
89-6	11/4/2003	ND	25.66		4,493.35	4,457.69	27-37
89-7	11/5/2003	ND	27.44		4,498.64	4,471.20	21-31
89-9	37929.00	NM - inaccessible			4,496.41	---	14-34
89-10	11/4/2003	26.30	26.31	0.01	4,484.07	4,457.77	22-32
90-2B	11/4/2003	ND	20.74		4,482.32	4,461.58	12.5-22.5
90-3	11/5/2003	ND	10.43		4,463.32	4,452.89	6-16
92-1	11/5/2003	ND	23.25		4,498.51	4,475.26	23.8-33.8
92-2	11/4/2003	ND	8.91		4,461.29	4,452.38	6-25
92-3	11/4/2003	22.22	22.23	0.01	4,500.59	4,478.37	25-35.5
92-4	11/4/2003	ND	21.25		4,490.23	4,468.98	24.8-34.8
94-1	11/4/2003	ND	10.43		4,452.09	4,441.66	27-37
94-2	11/4/2003	ND	8.54		4,459.05	4,450.51	27.5-37.5
95-1	11/5/2003	ND	21.43		4,499.08	4,477.65	15-30
B-Street	11/4/2003	NM - operating			not surveyed	---	NA$^{(h)}$
Rainbow	11/4/2003	NM - inaccessible			4,465.99	---	NA
RW-1	11/5/2003	23.72	23.73	0.01	4,494.83	4,471.11	NA
RW-2	11/5/2003	NM	NM		4,493.29	---	NA
RW-3	11/5/2003	ND	22.54		4,495.65	4,473.11	NA
RW-4	11/5/2003	22.11	22.66	0.55	4,493.85	4,471.67	NA
RW-6	11/5/2003	21.35	22.45	1.10	4,491.10	4,469.62	NA
RW-7	11/4/2003	23.21	23.40	0.19	4,496.37	4,473.11	13.5-28.5
RW-8	11/4/2003	ND	23.52		4,492.99	4,469.47	15-30
HRO-6	11/4/2003	23.13	23.85	0.72	4,497.76	4,474.54	18-28
HRO-7	11/4/2003	23.21	23.48	0.57	4,497.81	4,474.53	18-28
HRO-9	11/5/2003	24.64	24.66	0.02	4,484.88	4,460.24	15-30
HRO-10	11/5/2003	ND	25.86		4,496.27	4,470.41	14-34
HRO-13	11/5/2003	ND	23.40		4,494.73	4,471.59	18.5-38.5
HRO-20	11/4/2003	ND	23.89		4,497.01	4,473.12	15.5-25.5
HRO-21	11/4/2003	22.40	23.97	1.57	4,493.15	4,470.56	14.5-24.5
HRO-22	11/4/2003	ND	23.89		4,493.35	4,469.46	15-25
HRO-23	11/4/2003	ND	23.71		4,493.11	4,469.40	18-28
HRO-24	11/4/2003	ND	23.59		4,496.73	4,473.14	15-25
LPZ-100	11/5/2003	dry	dry		not surveyed	---	NA
LPZ-150$^{(i)}$	11/5/2003	24.87	24.89	0.02	not surveyed	---	NA
LG-11	11/5/2003	NM - inaccessible			4,500.28	---	12.1-22.1
LG-12	11/5/2003	NM - inaccessible			4,500.45	---	11.1-21.1

Notes:

(a) Water depth and LNAPL thickness measured using a Heron H.01 interface meter.

(b) "BTOC" = below top of casing.

(c) Where LNAPL was present, the groundwater elevation was corrected using the following formula:
Air-Water Table Elevation = Measured Elevation + (Product Thickness x 0.88)

(d) "bgs" = below the ground surface.

(e) "NM" = not measured because the well was operating or inaccessible because of ice and snow.

(f) "---" = not applicable.

(g) "ND" = LNAPL was not detected in the well casing.

(h) "NA" = Not Available.

(i) Well LPZ-150 was used for the measurement because well LPZ-100 was dry.

TABLE 5

LNAPL THICKNESS MEASUREMENTS
MAY 1989 THROUGH NOVEMBER 2003
BN Livingston Facility

Well ID	May-89	Nov-89	May-90	Nov-90	May-91	Nov-91	May-92	Nov-92	May-93	Nov-93	May-94	Nov-94	May-95	Aug-95	Nov-95	May-96	Nov-96	May-97	Nov-97	May-98	May-99	Jun-99	Sep-99	Nov-99	Jun-00	Nov-00	May-01	Dec-01	May-02	Nov-02	Jun-03	Nov-03
1	---[a]	---	---	---	---	---	---	ND[b]	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND	ND
2	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND	ND
3	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND	ND
LS-6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01[c]	ND	ND	ND	ND	ND
LS-7[d]	0.33	0.24	0.17	0.30	0.28	0.51	---	0.40	0.12	0.45	---	---																				
LS-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01
LS-12[e]	0.86	---	---	0.74	---	---	---																									
LB-4	---	0.95	---	0.86	0.90	---	---	0.77	0.54	---	---	0.81	0.45	0.65	---	---	---	0.66	0.42	0.28	0.39	0.40	0.47	---	0.09	---	0.57	0.23	0.04	0.07	0.19	---
LPW-1[f]	0.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---															
L-87-2	0.27	1.74	---	0.76	0.12	0.13		0.01	ND	0.01		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	0.01	ND	ND		0.02	ND	<0.01	<0.01	ND	ND
L-87-3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01
L-87-4	0.22	0.31	---	---	---	---	---	---	ND	---	ND	---	ND	0.19	0.10	---	0.39	0.98	0.68	0.11	---	0.03	0.02	---	ND	---	<0.01	ND	<0.01	ND	0.07	0.54
L-87-5	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND	ND
L-87-6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	ND	---	---	---	<0.01	ND	---	---	---[g]	---
L-87-7	0.93	1.26	0.70	1.10	---	0.68	0.62	1.00	0.63	0.70	0.58	0.68	0.24	0.65	0.70	0.24	0.46	0.90	0.48	0.33		0.55	0.67	ND	0.22		0.39	0.42	0.49	0.28	0.53	0.33
L-87-8	---	0.38	0.31	0.35	---	0.62	0.35	0.42	0.33		0.10	0.15	0.12	0.31	0.27	0.11	0.40	0.24	0.23			0.01	0.07			0.40	1.21	0.76	0.50	0.57	1.33	1.78
L-88-9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01	ND	ND	ND	ND	ND
89-1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.01
89-4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.01
89-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.01
90-1C	---	---	---	---	---	0.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03	---	---	---	---
92-3[h]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND	0.01
L-88-13[h]	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	<0.01	ND	ND	ND	---	ND	ND	ND	ND	ND	ND
HRO-4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.41	---	---	---	---	---	---	---	---	---	---	---	---	---
HRO-5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.04	---	---	---	---
HRO-6	---	---	---	---	---	---	---	0.62	---	0.80	0.48	0.56	0.36	0.52	---	0.65	0.74	0.43	0.70	0.37	0.34	0.04	0.14	---	0.04	---	---	0.42	0.53	0.62	0.23	0.72
HRO-7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.58	0.61	0.27	0.20	<0.01	0.23	---	0.01	---	0.65	0.55	0.61	0.48	0.35	0.57
HRO-8	---	---	---	---	---	---	---	---	---	0.02	---	0.21	---	ND	---	---	---	---	dry	---	---	---	---	---	---	---	---	0.46	---	---	---	---
HRO-9	---	---	---	---	---	---	---	---	---	0.10	---	---	---	---	---	0.03	---	0.04	0.05	0.03	0.03	0.02	0.01	---	ND	---	0.11	0.04	0.04	0.03	0.03	0.02
HRO-10	---	---	---	---	---	---	---	---	---	---	---	ND	---	<0.01	---	ND	---	---	<0.01	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND
HRO-11[i]	---	---	---	---	---	---	---	---	---	---	---	0.11	0.23	ND																		
HRO-12[i]	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	---	ND																
HRO-13	---	---	---	---	---	---	---	---	ND	---	---	ND	ND	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND
HRO-14[i]	---	---	---	---	---	---	---	---	ND	---	---	ND	<0.01	---	---	ND																
HRO-15[i]	---	---	---	---	---	---	---	---	0.02	---	---	0.07	<0.01	---	---	---																
HRO-16[i]	---	---	---	---	---	---	---	---	0.01	---	---	0.09	0.04	---	---	---																
HRO-17	---	---	---	---	---	---	---	---	0.41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HRO-19[i]	---	---	---	---	---	---	---	---	---	0.24	---	---	---	---	---	---																
HRO-20	---	---	---	---	---	---	0.21	---	---	---	<0.01	<0.01	ND	0.06	0.16	0.03	---	ND	0.15	---	---	---	---	---	---	---	---	ND	0.09	ND	ND	ND
HRO-21	---	---	---	---	---	---	---	---	---	---	<0.01	<0.01	ND	ND	<0.01	ND	---	<0.01	---	---	---	---	---	---	---	---	---	ND	0.18	0.16	ND	1.57
HRO-22	---	---	---	---	---	---	---	---	---	---	<0.01	<0.01	<0.01	ND	0.01	ND	---	0.01	0.06	---	---	---	---	---	---	---	0.21	ND	<0.01	ND	ND	ND
HRO-23	---	---	---	---	---	---	---	---	---	---	<0.01	<0.01	ND	ND	---	ND	---	ND	ND	---	---	---	---	---	---	---	<0.01	ND	<0.01	ND	ND	ND
HRO-24	---	---	---	---	---	---	---	---	---	---	0.02	<0.01	0.01	0.14	0.24	ND	---	0.03	0.17	---	---	---	---	---	---	---	0.04	ND	<0.01	ND	ND	ND
RW-1	---	---	---	---	---	---	---	0.01	ND	---	---	<0.01	0.01	---	---	ND	---	ND	---	---	<0.01	0.01	ND	---	---	---	0.01	ND	ND	ND	ND	0.01
RW-2	---	---	---	---	---	---	---	ND	ND	---	---	<0.01	<0.01	---	---	ND	---	ND	---	---	0.01	0.01	ND	---	---	---	<0.01	ND	ND	ND	ND	---
RW-3	---	---	---	---	---	---	---	0.01	ND	---	---	0.04	<0.01	---	---	---	---	0.15	---	---	0.10	0.10	ND	---	---	---	0.07	0.10	dry	<0.01	ND	ND
RW-4	---	---	---	---	---	---	---	0.16	0.20	---	---	0.16	0.16	---	---	0.40	---	0.34	---	---	1.01	0.41	ND	---	[illegible]	---	0.51	0.48	0.29	0.47	0.56	0.55
RW-5[j]	---	---	---	---	---	---	---	---	---	---	---	0.09	0.24	---	---	---																
RW-6	---	---	---	---	---	---	---	0.42	---	---	---	1.07	0.22	---	---	0.13	---	0.36	---	---	0.23	0.36	0.82	---	0.70	---	0.37	0.64	0.11	1.00	0.58	1.1
RW-7	---	---	---	---	---	---	---	---	---	---	0.22	0.02	0.04	0.19	0.25	ND	0.26	0.06	0.20	0.13	0.17	0.01	0.01	---		---	0.23	0.17	0.07	0.13	ND	0.19
RW-8	---	---	---	---	---	---	---	---	---	---	ND	0.01	0.03	0.15	0.17	---	---	0.04	---	---	0.05	0.02	0.08	---	---	---	0.28	0.31	0.47	0.30	---	---
RW-9	---	---	---	---	---	---	---	---	---	---	<0.01	ND	ND	ND	0.01	ND	ND	ND	ND	ND	<0.01	0.01	0.01	---	---	---	0.01	ND	<0.01	ND	ND	ND
LG-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	ND	---	---	ND	ND	ND	ND	---
LG-12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	<0.01	ND	ND	ND	---	---
95-1													---	---	---	ND	ND	ND	---	---	---	0.01	ND	---	ND	---	0.75	ND	<0.01	ND	ND	ND
HR-2W	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.10	0.07	0.09	---
LPZ-100	---	---	---	---	---	---	---	---	---	0.22	---	0.09	---	---	---	---	---	---	[illegible]	---	---	---	---	---	---	---	0.08	dry	dry	dry	dry	dry
LPZ-150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.02

Notes
- (a) "---" indicates LNAPL was not measured
- (b) "ND" = not detected
- (c) "<0.01" indicates that LNAPL was detected but the thickness was less than the resolution of the interface probe's scale
- (d) LS-7 was abandoned in December 1994. Well number 95-1 was constructed to replace LS-7
- (e) Well LS-12 was reportedly vandalized in November 1992. No LNAPL measurements were recorded after this date
- (f) Well LPW-1 was reportedly vandalized and made inaccessible in May 1997. No LNAPL measurements were recorded after this date
- (g) This well is not on the Montana DEQ-approved monitoring well list for June and November 2003. It is not known if the monitoring well is operational
- (h) The screen interval of the well is located below the average LNAPL level
- (i) The monitoring well cannot be located, and it is assumed that the well was destroyed or covered with ballast
- (j) LNAPL measurements are not made at well RW-5 because the well monument is located within a confined space

All LNAPL measurements are reported in units of feet

LNAPL was not detected in any other monitoring wells described in the DEQ-approved monitoring schedule

TABLE 6

WATER QUALITY PARAMETERS JUNE 2003 SAMPLING EVENT
BN Livingston Facility

Well	Temperature (°C)	pH	Specific Conductance (us/cm)	Dissolved Oxygen (percent saturation)
3	11.94	7.21	863	4.46
6	11.32	6.92	724	2.75
11	11.79	7.31	752	10.37
89-10	13.41	7.27	982	9.31
89-2	12.85	6.84	588	8.10
89-3	10.49	7.37	723	6.68
89-4	11.47	7.06	862	5.94
89-6	11.20	6.85	975	10.28
89-8	12.12	7.38	909	7.13
89-9	10.63	7.27	724	5.06
90-3	11.32	7.13	801	0.30
90-6	11.13	7.32	723	7.58
92-1	12.05	7.25	770	6.93
92-2	8.82	6.96	658	1.40
92-4	12.01	6.84	941	7.26
94-1	9.41	7.07	579	2.63
94-2	9.35	7.21	528	2.31
Depuy	11.53	7.4	649	3.31
L-87-2	12.67	6.84	873	0.77
L-87-3	12.10	6.49	1088	7.15
L-87-5	11.20	7.46	802	5.49
L-87-8	11.00	7.08	674	5.12
L-88-10	12.03	6.58	871	0.31
L-88-13	11.52	6.69	789	0.12
LS-11	11.24	7.06	848	0.00
MW-10	12.49	6.65	743	6.77
MW-11	11.19	7.52	726	6.63
MW-12	11.80	6.99	767	6.63
O'Hara	10.50	7.03	557	4.67
Parisi	13.90	7.02	608	8.55
Rainbow	10.16	7.03	782	5.13

TABLE 7

GROUNDWATER QUALITY PARAMETERS NOVEMBER 2003 SAMPLING EVENT
BN Livingston Facility

Well	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (percent saturation)
89-3	11.01	7.32	549	62.9
89-4	11.64	7.27	725	44.5
90-3	11.33	7.17	659	4.5
92-1	11.64	7.21	670	58.3
92-2	11.73	7.30	409	29.7
94-1	10.75	7.66	347	27.8
94-2	9.83	7.30	337	33.8
L-87-2	12.44	6.86	735	2.4
L-87-5	9.22	7.52	574	51.8
L-87-8	11.5	7.00	739	3.2
L-88-10	11.62	7.11	721	2.6

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
1																																									
July-88	07/27/88	0.8	<0.50(a)	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA(c)	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/02/89	0.42(0.91)(b)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-89	11/17/89	0.63	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/18/91	1.4	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	0.86	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	1.1	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-92	11/24/92	1.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/26/93	0.66	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/29/93	1.4	<0.50	<1.0	<1.0	0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/09/94	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/22/94	0.46J(d)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/31/95	0.22J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	12/03/95	0.48J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/28/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/05/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	0.94	0.82	0.90	<0.50	1.4	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
2																																									
July-88	07/28/88	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	08/02/89	1.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	0.82	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/20/89	0.55	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/16/90	0.55(0.58)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-90	08/27/90	0.32	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/30/90	0.82	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/19/91	0.5	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/18/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/28/92	1.1	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	0.77	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-92	11/24/92	0.78	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/26/93	0.74	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/17/93	0.81	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/06/94	20	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/22/94	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/30/95	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/29/96	0.30J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-97	06/18/97	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/05/99	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	0.68	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
3																																									
May-89	05/23/89	0.69	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/05/89	0.74(0.78)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-89	11/17/89	0.5(0.61)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-90	05/24/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/28/92	0.72	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	0.49(0.69)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
May-94	05/06/94	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/30/95	0.38J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/23/96	0.20J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/05/99	0.20J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/30/03	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
4																																									
August-89	09/05/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	2/16/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	06/01/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/01/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-91	02/19/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/31/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-91	08/19/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-91	11/18/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	1.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/28/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/26/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/05/94	0.68(0.68)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-95	05/24/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/23/96	0.21J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/27/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/04/99	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
5																																									
May-89	05/23/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/06/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/20/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/31/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-90	08/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/18/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1 2-Dichloroethene	trans 1 2-Dichloroethene	1,1,1 Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2 Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p-Xylene	o-xylene	m&p Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1-3-Dichloropropene	Trichlorofluoromethane	1 2 4 Trichlorobenzene	1,2 4-Trimethylbenzene	1 3,5-Trimethylbenzene
November 91	11/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	0.32	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/29/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August 92	09/01/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/26/93	0.38	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August 93	08/23/93	1.1(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November 93	11/17/93	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
February-94	02/16/94	0.63(0.65)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-94	05/05/94	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	0.88	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/22/94	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	0.32	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/23/95	0.44J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	08/23/95	0.39	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 95	12/01/95	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/22/96	0.20J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/27/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/04/99	0.21J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
[illegible]																																									
May-89	05/19/89	7.1	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	11	0.5	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/25/89	7.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/01/89	3.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	3.9(4.8)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
October-89	10/20/89	4.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	3.8	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	2.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	2.7	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/18/90	1.6	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	1.5	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	1.9	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/22/90	2.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/22/90	[illegible]	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	06/27/90	4.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	4.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	03/19/91	1.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/22/91	4.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	4.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	3.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	1.5	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/29/92	5.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-92	11/24/92	2.1(2.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
May-93	05/26/93	3.5(3.4)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November 93	11/17/93	1.8	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/06/94	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/22/94	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/23/95	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

		Analytes																																							
Well Name Sample Event	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p-Xylene	o Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec Butylbenzene	tert Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
November-95	12/01/95	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/22/96	1.4 (1.5)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	NA	NA	NA	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50 (<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50 (<0.50)	<0.50 (<0.50)	NA	NA	NA
May-97	05/27/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/21/98	0.74	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/04/99	0.28J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/30/03	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
7																																									
May-89	05/18/89	33 (41)	1.2 (1.4)	2.9 (2.5)	<1.0 (<1.0)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)
June-89	06/22/89	7.9 (7.3)	<0.50 (<0.50)	1.3 (1.1)	<1.0 (<1.0)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)
July-89	07/25/89	0.77 (0.90)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	NA	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0 (<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	NA
August-89	09/01/89	0.58	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	0.58	<0.50	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
December-89	12/26/89	1.7	<0.50	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	2.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/19/90	7.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	8.8	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	23	0.94	1.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/23/90	4.0	<0.50	1.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/25/90	2.5	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/13/91	6.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/28/91	29	1.3	3.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/15/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	4.1 (4.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)
May-92	05/29/92	0.98	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	8.9 (9.2)	0.50 (0.50)	1.0 (1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<0.50 (<0.50)	<0.50 (<0.50)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<0.50 (<0.50)	<1.0 (<1.0)	NA	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0 (<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0 (<1.0)	<1.0 (<1.0)	NA	NA	NA
May-94	05/10/94	13	0.58	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/24/95	9.0	0.35J	0.22J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
8																																									
May-89	05/22/89	190	5.9	17	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/22/89	168	10	24	<1.0	<0.50	<0.50	<0.50	<1.0	1.8	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/25/89	131	8.5	35	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/02/89	128	10	27	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	112	5.5	19	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	96	5.1	19	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	123	5.1	12	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/22/90	148	9.1	24	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	12/04/90	93	4.1	4.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/22/91	130	6.0	7.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	118	8.1	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	64	4.5	7.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/21/91	46	1.5	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/25/92	79	19	6.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	38	1.4	3.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	70	5.0	7.9	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/05/94	50	2.8	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/24/95	59	3.2	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

		Analytes																																							
Well Name/ Sample Event	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
11																																									
July-89	07/26/89	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
August-89	09/02/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/29/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-03	06/30/03	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
89-1																																									
February-90	03/01/90	10	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/30/90	18(24)	2.2(1.1)	2.2(2.7)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-90	08/30/90	2.4	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	12/04/91	2.0	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	7.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	17	0.60	1.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	2.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	1.8	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/23/92	9.6	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/30/92	7.3(6.9)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-93	05/27/93	13	<1.0	1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/05/94	6.9	<0.50	0.26J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/25/95	8.4(9.4)	0.32J(0.34J)	0.22J(0.19J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-01	11/29/01	0.35J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/17/02	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/20/02	0.42J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
89-2																																									
February-90	02/23/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.3	<1.0	NA	NA	NA
April-90	04/19/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/25/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
July-90	07/27/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-90	08/27/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-90	09/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
October-90	10/25/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-90	01/03/91	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.3	<1.0	NA	NA	NA
January-91	01/25/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-91	02/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-91	03/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-91	04/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-91	05/25/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-91	06/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-91	07/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/19/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	1.3(1.1)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
December-91	12/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethene	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2 Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p-Xylene	o Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5 Trimethylbenzene
January-92	01/21/92	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
February-92	02/25/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-92	03/31/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-92	05/05/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-92	05/30/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-92	06/29/92	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)
August-92	08/27/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November 92	11/25/92	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
February-93	02/24/93	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<1.0	<2.0	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	<2.0	<2.0	NA	NA	NA
May-93	05/24/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/25/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/15/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/05/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/22/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/24/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August 95	09/06/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 95	11/30/95	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-96	05/20/96	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	06/04/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/19/98	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/04/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/16/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.51	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/18/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/02	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/27/03	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
89-3																																									
February-90	02/23/89	273	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/25/90	273.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/01/90	270	0.55	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/28/90	430	0.73	1.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September 90	09/26/90	453	0.74	1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-90	11/27/90	310	0.67	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	230(340)	0.90(0.91)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/22/91	310	0.53	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	410	1.0	<1.0	<1.0(<1.0)	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0(<1.0)	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0(<1.0)	<1.0(<1.0)	<1.0	<1.0	<1.0	<1.0
November-91	11/21/91	260(260)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-92	02/26/92	160	0.58	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-92	03/31/92	253	0.59	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-92	05/29/92	260	0.40	1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	05/01/92	420(170)	0.74(0.90)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November-92	11/25/92	190	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	170	0.55	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	220	0.74	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August 93	09/02/93	260	1.3	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November 93	11/22/93	160	0.83	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/17/94	210(160)	0.63(0.58)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-94	05/10/94	119(113)	0.91(0.71)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
August 94	08/18/94	245	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/23/94	171	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis-1,2 Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2 Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p-Xylene	o Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec Butylbenzene	tert Butylbenzene	Toluene	trans 1-3-Dichloropropene	Trichlorofluoromethane	1,2,4 Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
February-95	03/02/95	203	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	06/01/95	241	1.8	0.21J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	09/06/95	184(194)	0.73(0.12)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-95	12/03/95	199	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/28/96	205	1.4	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/12/96	172	0.83	<0.50	<0.50	<0.50	<0.50	<0.50	0.28J	<0.50	<0.50	<0.50	0.42J	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	06/02/97	163	0.67	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/11/97	204	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/27/98	134	0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/17/98	111	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/10/99	138	1.5	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/11/99	136	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/19/00	123(142)	1.4(0.99)	1.0(0.80)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50	NA	NA	NA
November-00	11/15/00	154(140)	1.2(1.1)	0.16(0.10)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/23/01	135	1.8	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/27/01	185	2.0	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/02	184	1.7	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	146(121)	1.4(1.2)	0.37J(0.31J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	0.31J(0.20J)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
June-03	06/26/03	148	1.3	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/03	113	1.72	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
09-4																																									
February-90	03/02/90	530	3.9	5.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/25/90	480(490)	4.8(3.9)	8.6(8.6)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
May-90	05/29/90	338	4.3	6.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	310	3.3	4.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-90	07/27/90	102	4.3	2.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/28/90	154(153)	3.6(3.4)	1.5(1.2)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-90	09/25/90	127	4.2	1.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-90	10/25/90	200	3.3	2.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-90	11/27/90	260	4.1	3.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	340	3.5	3.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	330	3.2	3.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	160	4.3	1.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	210	6.0	10	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/25/92	340	5.9	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/30/92	210	6.1	4.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/27/92	190(200)	3.2(3.4)	4.6(4.3)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November-92	12/03/92	200	2.9	2.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/24/93	160	2.2	1.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/24/93	150	3.0	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/24/93	120	2.3	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	146(140)	1.8(1.9)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
February-94	02/15/94	150	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/04/94	130	1.0	0.72	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	42(93)	2.6(2.1)	0.73(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-94	11/22/94	121	1.8	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	139	1.8	0.44J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/31/95	<0.50(<0.50)	1.6(1.6)	0.78(0.73)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
August-95	08/22/95	[illegible]	[illegible]	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	12/01/95	84	1.3	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/22/96	137	1.2	2.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/30/97	87	1.1	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

		Analytes																																							
Well Name/ Sample Event	Sample Date	Tetrachloroethene	Trichloroethene	cis 1 2 Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1 2 Dichlorobenzene	1 3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2 4-Trimethylbenzene	1,3,5 Trimethylbenzene
November-97	11/10/97	99	1.7	6.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/10/98	64	1.0	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/03/99	64	1.3	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/08/99	64	1.0	9.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/10/00	87	1.4	5.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/14/00	62	1.5	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/21/01	86(88)	1.2(1.1)	1.2(1.2)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-01	11/26/01	77	1.3	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/02	84	1.1	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	78	1.4	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	82	1.3	19	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/03	68.9	1.26	0.53	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
89-8																																									
February-90	03/01/90	28	0.80	1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/29/90	28	1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November 90	12/04/90	32	0.63	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/22/91	33	0.87	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/22/91	38	0.80	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	29	1.0	3.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November 91	11/19/91	18	0.80	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/28/92	21(21)	0.64(0.67)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-92	05/30/92	32	1.1	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	21	0.64	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/06/94	1.80	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/26/95	16	0.34J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/28/96	16	0.19J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/28/97	12(13)	0.16J(0.18J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-99	05/03/99	14	0.20J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/14/00	8.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/22/01	8.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/17/02	8.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/27/03	3.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
89-7																																									
February-90	03/01/90	32(30)	2.5(2.3)	1.0(1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-90	05/23/90	29(28)	2.8(4.2)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November 90	11/30/90	19	1.8	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/22/91	16(17)	2.3(2.3)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/22/91	14	2.6	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	25	1.6	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November 91	11/21/91	18	1.8	1.8	<1.0	0.85	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	03/03/92	20	1.9	<1.0	<1.0	0.72	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/28/92	18	3.4	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	14	4.3	<1.0	<1.0	0.66	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/10/94	10	1.4	<0.50	<0.50	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/31/95	10	3.4	<0.50	<0.50	0.37J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
89-6																																									
February-90	02/23/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/24/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-90	09/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-91	08/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-03	06/26/03	96	3.5	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethene	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
89-9																																									
March-90	03/16/90	253	6.0	3.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/29/90	382(330)	8.3(7.5)	1.9(2.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
June-90	06/28/90	400	8.6	2.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/29/90	330	7.9	2.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	280(240)	6.2(7.1)	1.0(1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-91	02/25/91	230	6.5	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	250	8.2	1.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	220	13	1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/21/91	190	5.9	1.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	200	6.1	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	190	6.2	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/27/92	170	8.1	3.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	130	6.3	2.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	120	3.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	41	7.8	1.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	90	4.1	2.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/17/94	90	3.5	1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/10/94	90	2.3	0.82	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/16/94	87	4.1	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-94	12/14/94	80	4.1	0.99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	65	2.9	0.58	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	06/02/95	71	3.4	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	09/06/95	50	2.9	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	12/02/95	62	2.7	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/01/96	53	2.4	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	06/03/97	69(69)	5.6(5.7)	3.2(2.2)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	0.90(0.84)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-97	11/18/97	58	4.1	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/17/98	48(49)	3.0(3.1)	[illegible]	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
May-99	05/07/99	41(65)	2.2(2.2)	1.2(1.2)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-99	11/09/99	46	4.1	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/18/00	52	4.1	0.93	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/15/00	44	4.1	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/23/01	45	1.2	0.45J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/27/01	44(43)	2.3(2.4)	1.3(1.4)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-02	05/15/02	39	1.2	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	40	2.0	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/26/03	39	2.6	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
89-10																																									
May-90	05/29/90	163	16	90	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/22/91	160	11	26	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	89	8.1	20	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/28/92	110	7.6	20	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	06/07/93	73	6.6	21	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/09/94	63	3.7	16	0.21J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/26/95	61(60)	3.1(3.0)	11(13)	<0.50(0.24J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-96	05/24/96	55	3.3	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/28/97	35	4.3	4.2	0.19J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/03/99	36	3.6	3.4	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/16/00	32	3.5	3.3	0.26J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/22/01	36	3.1	2.0	0.20J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/17/02	43	1.6	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/30/03	31	4.8	3.2	0.42J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2 Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes (total)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
89-11																																									
March-90	03/21/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	06/01/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/22/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/29/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-1A																																									
March-90	03/06/90	**487**	**14**	**102**	**1.0**	<0.50	<0.50	<0.50	**10**	<1.0	<1.0	**0.33**	**3.0**	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-1B																																									
February-90	03/06/90	**365(363)**	**14(14)**	**95(83)**	**1.0(1.1)**	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	**9.1(9.8)**	<1.0(<1.0)	<1.0(<1.0)	**0.50(0.50)**	**12**	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	1.5(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-90	05/30/90	**480**	**14**	**17**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/08/91	**160**	**12**	**34**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-1C																																									
February-90	03/06/90	**327**	**29**	**184**	**1.9**	<0.50	<0.50	<0.50	**12**	<1.0	<1.0	<1.0	**9.7**	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-2A																																									
March-90	03/16/90	**251**	**29**	<1.0	**1.9**	<0.50	<0.50	<0.50	**12**	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-2B																																									
March-90	03/16/90	**179**	NA	**178**	**1.8**	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	**16**	**4.2**	**35**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	**16**	**4.2**	**4.2**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/09/94	**16**	**9.8**	**43**	0.44J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/26/95	**60**	**4.2**	**23**	0.32J	<0.50	<0.50	**0.94**	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	**12**	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
90-3																																									
May-90	05/29/90	**16**	**9.8**	**31**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	**65**	**4.2**	**48**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/30/90	**15**	**4.2**	**26**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/25/90	**16**	**6.3**	**4.2**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	**22**	**4.5**	**4.2**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	**60**	**4.2**	**39**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	**14(14)**	**10(9.6)**	**32(33)**	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-91	11/19/91	**16**	**4.2**	**7.7**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	**1.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	03/27/92	**12**	**4.2**	**3.8**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	**50**	**4.2**	**25**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/25/93	**44**	**4.2**	**11**	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/09/94	**33**	**3.8**	**3.0**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	06/02/95	**37(31)**	**3.8(2.8)**	**3.1(4.4)**	0.10J(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-96	05/23/96	**29**	**2.6**	**2.0**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/12/96	**12(11)**	**2.1(2.1)**	1.7(1.4)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-97	05/28/97	**11**	**1.2**	0.38J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/11/97	**8.4**	**2.0**	**2.0**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/16/98	**18**	**1.9**	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/06/99	**17**	**1.5**	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/09/99	**11**	**2.0**	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/17/00	**17**	1.2	0.32J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-01	05/18/01	14	0.96	0.22J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/27/01	13	0.82	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	15	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-02	11/18/02	15	0.86	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/26/03	16	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/06/03	7.30(6.90)	2.10(2.23)	1.85(1.84)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<0.500(<0.500)	<1.00(<1.00)	<0.500(<0.500)	<0.500(<0.500)	NA	NA	NA	<0.500(<0.500)	<0.500(<0.500)	NA	<2.50(<2.50)	<1.00(<1.00)	NA	NA	NA	NA	NA	<1.00(<1.00)	<0.500(<0.500)	<0.500(<0.500)	NA	NA	NA
90-4																																									
March-90	03/21/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-90	05/31/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
90-5																																									
March-90	03/21/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/30/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
90-6																																									
November-90	11/30/90	5.9(5.6)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/21/91	2.3	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/30/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/28/92	0.34	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/25/92	0.72	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/21/93	0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	09/02/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/17/93	1.1	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/15/94	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/04/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/22/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/23/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	08/22/95	0.76	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	12/01/95	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/26/03	0.57	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
92-1																																									
February-92	03/03/92	800(850)	0.66(0.76)	4.5(4.5)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)
May-92	05/30/92	320	0.80	7.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0
August-92	08/28/92	220	<0.50	7.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	160	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	200	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/27/93	470	<0.50	3.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/26/93	210	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/24/93	200	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	84	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/10/94	87	<0.50	0.30J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/22/94	115	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	63	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	84	0.10J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	06/01/95	68	0.16J	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	08/22/95	134	0.18J	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95		109	0.20J	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/28/96	55	0.44J	21	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	0.64	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-97	05/30/97	85	0.37J	8.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/11/97	317	0.27J	4.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/28/98	166	1.1	13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/17/98	60	<1.0	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-99	11/09/99	152	0.17J	13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/25/00	73(94)	<0.50(<0.50)	17(19)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50	NA	NA	NA
November-00	11/14/00	117	<0.50	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/23/01	75(72)	<0.50(<0.50)	1.6(1.6)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50	NA	NA	NA
November-01	11/28/01	94	<0.50	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/02	74	<0.50	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	81	<0.50	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	0.18J	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/25/03	43	<0.50	9.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/01/03	77.4	<0.500	3.90	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
02-2																																									
May-92	06/04/92	15	1.8	3.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/28/92	41	6.4	18	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	37	2.6	7.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	31	2.3	4.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	06/07/93	0.81	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	09/02/93	7.5	<5.0	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<5.0	<10	NA	NA	NA	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	<10	<10	NA	NA	NA
November-93	11/24/93	29	2.5	6.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	33	3.3	3.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/05/94	15	2.9	4.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/19/94	33	3.8	6.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/22/94	29	2.6	2.8	<0.50	<0.50	<0.50	<0.50	0.84	<0.50	<0.50	0.43J	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	37(39)	3.4(3.4)	3.8(3.9)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-95	06/01/95	16(17)	3.1(1.9)	3.6(3.2)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
August-95	09/05/95	24(25)	3.0(3.3)	4.0(4.3)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-95	11/29/95	27	3.7	4.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	9.7	4.67	0.18	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/12/96	21	2.8	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/10/97	13	1.2	0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/19/98	8.1	0.37	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/16/98	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/06/99	6.0	0.46J	0.31J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/08/99	15	1.3	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/17/00	12	1.1	0.66	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/15/00	14	0.97	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/18/01	5.8	0.38J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/25/01	13	0.88	0.41J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	11	0.76	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/18/02	8.5	0.66	0.34J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	11	0.63	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/03	19.3	4.670	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
02-3																																									
August-92	08/28/92	1.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	0.54	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/27/93	0.31	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/24/93	1.5	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/11/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-94	06/10/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	0.82	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/23/94	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	0.61	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/23/95	0.15J(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
August-95	08/23/95	0.75(0.57)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-95	12/01/95	0.47J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
82-4																																									
August-92	08/28/92	2.2	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/24/92	4.1	1.1	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/25/93	31	2.1	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/26/93	33	2.9	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/25/93	2.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November 93	11/22/93	2.3	0.54	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/15/94	38	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/05/94	35(32)	1.8(1.9)	0.21J(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
August-94	08/18/94	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/22/94	3.5	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	33	2.3	0.10J	<0.50	0.11J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/23/95	34	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August 95	09/08/95	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 95	12/02/95	4.4(4.5)	1.0(1.1)	0.12J(0.12J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-96	05/22/96	20	1.4	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-97	06/18/97	2.4	0.36J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	0.25J	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/29/98	33	1.3	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/03/99	21	1.1	0.30J	<0.50	0.047J	<0.50	0.34	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/21/01	35	1.2	0.36J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/15/04	38	1.9	0.33J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/20/03	8.8	1.0	0.45J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
94-1																																									
May-94	05/10/94	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/24/94	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/30/95	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	09/06/95	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 95	12/02/95	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 96	11/13/96	3.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/14/97	1.9(1.9)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-98	05/18/98	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December 98	12/15/98	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/05/99	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 99	11/11/99	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/18/00	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/16/00	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/18/01	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/25/01	1.5(1.6)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50	NA	NA	NA
May-02	05/14/02	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/18/02	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/06/03	1.49	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<0.500	<0.500	NA	NA	NA	NA	NA	<0.500	<0.500	<0.500	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

		Analytes																																							
Well Name/ Sample Event	Sample Date	Tetrachloroethene	Trichloroethene	cis 1,2 Dichloroethene	trans-1,2 Dichloroethene	1,1,1 Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2 Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p Xylene	o Xylene	m&p Xylene	Xylenes, total	Methylene Chloride	Naphthalene	n Butylbenzene	n Propylbenzene	p Isopropyltoluene	sec Butylbenzene	tert Butylbenzene	Toluene	trans 1,3 Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4 Trimethylbenzene	1,3,5 Trimethylbenzene
04-2																																									
May-94	05/05/94	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/15/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	0.65	<0.50	0.65	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	0.37(0.33J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-95	05/30/95	0.30J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	08/24/95	0.28J(0.26J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-95	11/29/95	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	0.25J(0.25J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-96	11/11/96	0.35J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-97	11/10/97	0.44J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/18/98	0.42J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/16/98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/06/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/09/99	0.31J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/17/00	0.27J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/16/00	0.23J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/16/01	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/28/01	0.22J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	0.23J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/10/02	0.29J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	0.21J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/06/03	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<0.500	<0.500	NA	NA	NA	NA	NA	<0.500	<0.500	<0.500	NA	NA	NA
B Street																																									
July-89	07/13/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
October-89	10/20/89	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-89	11/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	12/07/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	12/07/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/11/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
January-90	01/20/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-90	02/17/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/21/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/25/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/22/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	06/28/90	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
July-90	07/21/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/25/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-90	09/29/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
October-90	10/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-90	01/03/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
January-91	01/28/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-91	04/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-91	06/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-91	07/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March 92	03/21/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis 1,2 Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec Butylbenzene	tert Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4 Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
April-92	05/03/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/30/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/25/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-94	05/10/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/15/95	5.8	0.22J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	0.72	1.2	0.38J	<0.50	1.8	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
July-95	07/18/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-96	05/21/96	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	06/05/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/29/98	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-99	05/07/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.14	<0.50	<0.50	0.31J	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-00	05/25/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-01	05/23/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.14	0.96	0.18J	<0.50	1.8	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-02	05/22/02	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
Burns																																									
September-89	09/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/11/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Clarence Street																																									
July-89	07/12/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/06/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
D Street																																									
July-89	01/12/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	08/16/89	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0	<1.0	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-89	09/06/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/20/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/06/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/23/90	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Depuy																																									
Aug-89	08/01/89	1.6(7.3)	1.1(1.8)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	1.2(1.2)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-89	11/16/89	7.2	1.3	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-03	06/30/03	2	0.45J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
Geyser Trailer Court (Quisel)																																									
Jul-89	07/25/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/20/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	06/06/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HRO-10																																									
May-95	05/31/95	0.49J	9.9	23	1.2	<0.50	<0.50	2.0	13	1.6	0.23J	1.4	22	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
HRO-12																																									
August-91	08/07/91	11	7.5	8	<1.0	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
HRO-13																																									
August-91	08/07/91	65	18	19	1.3	<0.50	<0.50	<0.50	8.1	1.5	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
HRO-17																																									
August-91	08/06/91	110	28	23	<1.0	<0.50	<0.50	<0.50	2100	88	16	150	64	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-92	06/04/92	82	5.3	1.4	<1.0	<0.50	<0.50	<0.50	560	23	7.7	34	75	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	4.1	<1.0	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	09/01/92	84	10	3.5	<1.0	<0.50	<0.50	<0.50	840	100	8.1	71	39	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
HRO-10																																									
August-91	08/07/91	<0.50	2.5	13	<1.0	<0.50	<0.50	<0.50	13	4.8	<1.0	6.3	2.3	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
L Street																																									
May-88	05/26/88	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/06/89	<0.50(<0.50)	<0.50	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	03/20/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	06/06/03	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-1																																									
May-89	05/18/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	08/24/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/17/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/22/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	06/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November 90	11/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November 91	11/18/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/25/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/26/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-2																																									
November-89	11/16/89	<0.50	34	2350	31	<0.50	<0.50	1.4	135	3.7	<1.0	3.8	78	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	2.3(2.0)	39(35)	1500(1830)	16(16)	<0.50(<0.50)	<0.50(<0.50)	0.94(0.63)	134(115)	3.6(3.4)	<1.0(<1.0)	4.1(3.3)	71(81)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0	<1.0	3.7	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
January-90	01/20/90	3.3	38	1300	17	<0.50	0.5	0.83	127	2.7	<1.0	3.3	43	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/19/90	4.9	71	1130	14	<0.50	<0.50	1.2	68	2.8	<1.0	3.2	39	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	4.1(4.0)	73(70)	862(731)	12(14)	<0.50(<0.50)	<0.50(<0.50)	0.83(1.0)	81(102)	2.3(2.4)	<1.0(<1.0)	2.8(2.7)	39(33)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0	<1.0	2.9(2.8)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-90	05/29/90	1.7	29	711	<1.0	<0.50	13	0.63	81	3.6	<1.0	2.9	67	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	3.8	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	2.0(1.5)	19(19)	860(830)	19(14)	<0.50(<0.50)	<0.50(<0.50)	1.2(1.1)	124(110)	3.1(3.3)	<1.0(<1.0)	3.3(3.3)	71(76)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
July-90	07/27/90	1.3	13	1160	14	<0.50	<0.50	1.1	122	3.9	<1.0	2.2	68	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
September-90	09/26/90	2.7	13	1200	17	<0.50	0.64	1.4	126	3.8	<1.0	2.2	160	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	1.3	<1.0	<1.0	7.8	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0
October-90	10/26/04	1.7	13	1300	14	<0.50	<0.50	2.2	130	3.7	<1.0	4.8	120	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	NA	NA	3.9	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/30/90	2.4(2.0)	22(21)	1700(1600)	21(20)	<0.50(<0.50)	<0.50(<0.50)	1.5(1.3)	150(160)	3.7(3.9)	<1.0(<1.0)	3.7(3.7)	94(94)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	1.8(1.6)	1.2(1.3)	NA	NA	3.3(3.2)	<1.0(<1.0)	NA	<1.0(<1.0)	3.4(3.9)	2.9(1.3)	<1.0(<1.0)	<1.0(<1.0)	1.5(1.6)	<1.0(<1.0)	1.4(1.8)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-91	02/20/91	1.9	7.8	220	2.4	<0.50	<0.50	<0.50	68	3.2	<1.0	4.4	160	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	23	4.3	<1.0	<1.0	1.3	1.3	<1.0	<1.0	<1.0	<1.0	12	<1.0
May-91	05/28/91	<0.50	20	320	<1.0	<0.50	<0.50	0.81	33	2.4	<1.0	3.1	100	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	1.2	NA	NA	NA	NA	8.1	<1.0	8.1	<1.0	1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	8.4	<1.0
August-91	08/07/91	<0.50	7.2	770	13	<0.50	<0.50	1.7	63	2.2	<1.0	4.4	20	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	0.50	8.0	1100	14	<0.50	<0.50	1.5	160	4.1	<1.0	4.5	73	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/10/91	0.60	11	730	14	<0.50	<0.50	2.1	68	4.3	<1.0	3.4	130	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/24/91	0.33	13	870	9.9	<0.50	<0.50	1.7	74	4.5	<1.0	3.8	120	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/21/91	0.83	17	440	8.7	<0.50	<0.50	1.1	78	3.9	<1.0	3.7	160	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.2	NA	NA	NA	NA	4.3	<1.0	1.3	<1.0	1.8	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	3.4	<1.0
February-92	02/26/92	2.3	13	180	8.3	<0.50	<0.50	<0.50	63	3.7	<1.0	3.8	35	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	NA	NA	NA	NA	3.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/21/92	<0.50	7.8	310	<1.0	<0.50	<0.50	<0.50	77	<1.0	<1.0	<0.50	31	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/25/92	10	11	430	4.8	<0.50	<0.50	1.2	66	2.8	<1.0	3.7	83	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/24/93	1.2	10	160	3.2	<0.50	<0.50	1.1	53	3.3	<1.0	3.6	83	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	0.73	10	100	2.2	<0.50	<0.50	0.33	44	2.2	<1.0	2.5	68	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0
August-93	08/26/93	<0.50	4.2	270	3.7	<0.50	<0.50	0.54	38	2.5	<1.0	3.8	71	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	<0.50	13	140	3.5	<0.50	<0.50	13	44	3.1	<0.50	2.8	68	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	06/10/94	0.42J	10	46	1.6	<0.50	<0.50	7.8	33	2.7	0.43J	2.8	34	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.34	0.37	NA	NA	2.2	<0.50	2.2	<0.50	<0.50	0.38	<0.50	0.36	1.0	<0.50	0.40J	<0.50	<0.50	<0.50	<0.50	<0.50
August-94	08/16/94	1.0	3.0	68	2.7	<0.50	<0.50	30	34	3.4	0.60	4.3	48	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	NA	NA	NA	3.1	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	0.11	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	0.66(0.78)	8.3(8.1)	134(130)	3.0(2.7)	<0.50(<0.50)	0.22J(0.18J)	31(33)	56(38)	2.3(3.0)	0.43J(0.67)	3.1(3.7)	8.1(7.3)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
February-95	3 1/95	0.12J	15	73	2.7	<0.50	0.16J	40	43	2.3	0.37J	2.3	31	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes (total)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-95	06/01/95	<0.50	13	34	2.1	<0.50	<0.50	13	26	2.1	0.35J	2.8	41	0.11J	<0.50	<0.50	<0.50	<0.50	2.1	<0.50	<0.50	0.22J	<0.50	NA	NA	1.7	<0.50	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.41J	<0.50	<0.50	<0.50	2.2	<0.50
August-95	08/22/95	<0.50(1.3)	<0.50(2.0)	88(52)	<0.50(1.7)	<0.50(<0.50)	<0.50(<0.50)	43(26)	34(41)	<0.50(2.4)	<0.50(0.43J)	<0.50(3.0)	34(64)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-95	12/01/95	1.0	3.7	64	2.0	<0.50	<0.50	33	43	2.0	0.44J	3.2	58	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/20/96	<0.50	14	23	1.2	<0.50	<0.50	18	22	1.7	0.35J	2.4	46	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/12/96	<0.50	1.9	54	1.0	<0.50	<0.50	33	88	2.0	0.45J	3.2	64	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/30/97	<0.50	3.2	31	1.3	<0.50	<0.50	20	28	2.1	0.52	3.2	49	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.48J	0.64	NA	NA	2.2	<0.50	2.2	<0.50	<0.50	<0.50	<0.50	NA	1.2	<0.50	0.54	<0.50	<0.50	<0.50	<0.50	<0.50
November-97	11/14/97	<0.50(<0.50)	4.5(4.4)	41(40)	1.6(1.7)	<0.50(<0.50)	<0.50(<0.50)	35(34)	44(42)	2.3(2.4)	0.82(0.83)	4.1(4.2)	65(68)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-98	05/28/98	0.22J	11	18	1.2	<0.50	<0.50	18	31	1.9	0.48J	3.3	80	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/17/98	<1.0	1.5	33	1.0	<1.0	<1.0	64	37	2.0	<1.0	4.0	43	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/04/99	<0.50	8.2	17	0.90	<0.50	<0.50	11	31	1.5	0.43J	2.5	53	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/10/99	<0.50	1.1	28	1.2	<0.50	<0.50	31	33	1.9	0.38	4.1	31	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/16/00	<0.50	7.0	15	1.0	<0.50	<0.50	11	18	1.5	0.44J	3.0	80	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/14/00	<0.50	1.1	24	1.1	<0.50	<0.50	17	33	1.6	0.35	4.2	48	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/21/01	<0.50	11	11	0.91	<0.50	<0.50	8.2	14	1.3	0.40J	2.8	34	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/28/01	<0.50	1.1	18	0.91	<0.50	<0.50	18	29	1.7	0.53	3.8	49	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	<0.50(<0.50)	8.6(8.4)	11(8.9)	0.80(0.76)	<0.50(<0.50)	<0.50(<0.50)	8.1(8.4)	15(15)	1.3(1.2)	0.45J(0.42J)	2.6(2.7)	34(38)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	1.1(1.1J)	<0.50(<0.50)	1.1(1.1)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	0.27J(0.28J)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-02	11/18/02	<0.50	0.66	16	1.0	<0.50	<0.50	13	26	1.7	0.58	4.1	53	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	<0.50	0.42J	7.2	0.64	<0.50	<0.50	8.0	24	1.5	0.54	4.0	35	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	1.5	<0.50	1.3	<0.50	NA	NA	NA	NA	NA	NA	0.35J	NA	<0.50	NA	NA	NA
November-03	11/07/03	<0.500	0.630	14.0	0.660	<0.500	<0.500	12.2	22.4	1.54	0.810	4.64	44.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	1.33	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
L-87-3																																									
May-89	05/19/89	262	24	64	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/22/89	183	22	121	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/25/89	188	19	61	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	08/01/89	193	17	56	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	08/23/89	204	15	48	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	197	13	42	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	208	17	37	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/26/89	181	16	64	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	204	18	64	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/19/90	227	29	94	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	213	17	78	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	286	27	78	1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/29/90	199	13	21	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/27/90	164	12	27	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	180	18	53	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/22/91	170	13	64	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	94	11	25	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	130	10	18	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	140	12	57	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	190(188)	13(14)	45(57)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-92	08/27/92	88	8.7	17	<1.0	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/25/92	110	11	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	03/05/93	188	12	34	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/24/93	88	11	64	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/25/93	81(80)	9.6(9.9)	18(18)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November-93	11/22/93	86	10	14	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	100	11	21	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/09/94	96	8.7	24	0.35J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	74	6.5	6.3	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	92	7.3	6.9	0.26J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	92(89)	8.5(8.2)	16(16)	0.42J(0.41J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	0.21J(<0.50)	<0.50(<0.50)	<0.50(<0.50)	0.13J(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis 1,2-Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-95	05/31/95	88	8.8	17	0.35J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August 95	08/21/95	69(67)	8.1(8.1)	6.5(6.4)	0.24J(0.24J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November 95	11/30/95	59	6.6	11	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/24/96	76	6.3	14	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	44	7.5	12	0.42J(0.41J)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/28/98	49	8.8	7.8	0.44J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/04/99	46	3.3	6.9	0.45J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/16/00	54	5.8	6.0	0.30J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/18/01	52	4.6	5.2	0.38J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/26/01	52	4.7	2.6	0.41J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	96	4.8	4.2	0.32J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	46	4.2	3.1	0.75	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/27/03	35	3.2	5.0	0.48J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
L-87-4																																									
May-89	05/23/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89		<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/16/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	1.9
May-90	05/22/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August 90	08/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0
November 90	11/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	2.4	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
February-91	02/20/91	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-91	05/28/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/25/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-94	05/04/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-95	05/24/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-96	05/28/96	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	0.86	<0.50	<0.50	NA	0.19J	<0.50	<0.50	<0.50	<0.50	<0.50	0.46J	<0.50
May-99	05/11/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/17/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
L-87-5																																									
January-89	01/04/89	78	18	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-89	05/23/89	333	8.7	5.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	338	11	6.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/25/89	345	13	7.5	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/02/89	367	13	7.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	381	12	7.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	355	13	6.8	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	358	10	8.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/26/89	278	8.6	4.5	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/17/90	234(254)	5.1(5.4)	3.3(3.2)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
March 90	03/15/90	259	5.5	3.4	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	310	11	4.5	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
July-90	07/27/90	400	14	6.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-91	02/22/91	190	6.2	2.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
August-91	08/22/91	260	12	4.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	300	12	4.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/21/91	160	8.0	3.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/25/92	150	5.0	1.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/27/92	160	8.0	4.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/25/92	72	4.3	3.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/24/93	94	3.2	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	70	4.2	3.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-93	08/26/93	83	6.1	3.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	80	4.0	3.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	73	3.4	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/10/94	58	2.5	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-94	08/18/94	82	4.3	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/28/94	77	3.4	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	82	3.3	0.48J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/01/95	57	3.2	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
August-95	08/22/95	81	3.3	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	12/01/95	51(37)	3.0(3.0)	3.2(1.2)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-96	05/28/96	94	3.4	0.31	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/30/97	80	5.0	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/16/98	47	3.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-01	05/23/01	34	1.1	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/29/01	35	3.2	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	31	1.3	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/20/02	56	3.2	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/25/03	37	2.0	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/03	27.3	1.07	0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
L-87-7																																									
July-89	07/25/89	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.1	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.1	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.7	3.9	NA	NA	2.0	3.8	NA	<1.0	32	<0.50	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	0.87	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.0	0.78	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6	8	<1.0	<1.0	<1.0	NA	NA	<1.0	21	4	3.4	<1.0	<1.0	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9	3.0	<1.0	<1.0	<1.0	NA	NA	<1.0	8.1	<0.50	1.1	<1.0	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	2.0	<0.50	<1.0	<1.0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	03/01/90	<1.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.72	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	2	NA	<1.0	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	<1.0	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	3.0	<1.0	<1.0	1.7	NA	NA	<1.0	23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/19/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.7	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	27	<0.50	5.5	<1.0	5.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-90	07/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.83	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.7	8.1	<1.0	<1.0	1.5	NA	NA	<1.0	48	<0.50	4.3	<1.0	6.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.72	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.3	3.2	<1.0	<1.0	1.0	NA	NA	<1.0	17	<1.0	2.2	<1.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9	4.7	NA	NA	<1.0	<1.0	NA	<1.0	31	5	3.4	<1.0	4.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.32	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	6.4	NA	NA	NA	NA	<1.0	<1.0	12	5.2	1.8	<1.0	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	0.64	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.2	0.9	NA	NA	NA	NA	1.5	<1.0	27	<1.0	3.8	<1.0	4.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5	4.1	NA	NA	NA	NA	1.3	<1.0	45	1.5	3.4	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/10/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	4.3	NA	NA	NA	NA	<1.0	1.1	6.9	<1.0	2.2	<1.0	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	NA	NA	NA	NA	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/26/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	2.0	<1.0	3.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans 1,2 Dichloroethene	1,1,1 Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
May-94	05/04/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	8.3	NA	NA	0.64	<0.50	0.64	<0.50	3.8	1.1	1.4	NA	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-95	05/24/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.93	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.8	4.6	NA	NA	1.8	<0.50	1.8	<0.50	19	1.6	2.1	<0.50	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	8.7	<0.50
May-97	05/29/97	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	1.2(1.3)	0.45J(0.51)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	4.2(4.6)	3.6(3.8)	NA	NA	2.3(2.3)	<0.50(<0.50)	2.3(2.3)	<0.50(<0.50)	31(23)	<0.50(<0.50)	3.4(3.8)	<0.50(<0.50)	4.3(4.4)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)
May-98	05/28/98	<0.50(0.85)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	0.94(0.87)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-99	05/05/99	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/24/00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/17/01	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.17J	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
L-87-6																																									
May-89	05/22/89	56	7.0	3.5	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	33	4.3	2.4	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/25/89	68	7.3	8.1	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	09/01/89	94	11	9.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	104	13	5.1	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	118	16	8.8	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/18/89	96(78)	8.6(9.8)	7.2(7.4)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
December-89	12/20/89	73	11	8	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	61	13	6.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	03/01/90	63	16	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	93	16	7.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/19/90	57	17	5.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/28/90	48	13	14	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
November-90	11/28/90	57	38	11	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	43	35	18	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	12	4.6	1.5	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	4.8	<1.0	<1.0	<1.0	1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
August 91	08/22/91	41	13	4.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
September 91	09/25/91	28	13	8.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/10/91	5.1	3.5	5.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October 91	10/24/91	4.4	7.2	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/18/91	<0.50	3.9	18	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	18	7.8	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	11	2.8	2.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	NA	NA	NA	NA	1.2	<1.0	<1.0	<1.0	<1.0	3.8	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	2.3
August-92	08/27/92	6.2	0.93	5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November 92	11/25/1992	3.8	0.94	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/24/93	6.7	4.4	5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	3.5	5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	2.1	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	NA	1.0
August-93	8/24/1993	3.4	5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	3.8	5.0	5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/15/94	3.2	5.0	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/09/94	10	5.5	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.16J	<0.50	<0.50	<0.50	<0.50	NA	NA	0.24J	<0.50	0.24J	<0.50	<0.50	<0.50	<0.50	NA	0.34J	<0.50	<0.50	<0.50	<0.50	0.18J	<0.50	<0.50
August 94	08/18/94	12	5.6	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 94	11/23/94	8.4	4.6	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	8.1	19	3.2	0.16J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	0.11J	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/31/95	3.7	1.6	0.42J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.17J	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	0.34J	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<0.50
August-95	08/23/95	2.8	5.0	0.93	<0.50	<0.50	<0.50	<0.50	0.16J	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	11/30/95	3.8	5.0	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	2.4	2.2	0.33	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November 96	11/11/96	2.4	1.8	0.45J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	2.9	0.74	0.43J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.44J	0.38J
November-97	11/12/97	1.7	1.1	0.48J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/28/98	3.4	3.8	2.2J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
		Analytes																																							
December-98	12/14/98	<1.0	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/05/99	1.7	8.1	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/11/99	1.7	3.3	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/17/01	2.4	5.5	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/28/01	1.8	5.8	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	1.2	3.3	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/19/02	1.3	3.7	2.6	0.17J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/20/03	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/04	0.75J	3.36	1.99	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	0.37	<0.500	NA	<0.500	<0.500	NA	NA	NA	NA	NA	<0.500	<0.500	<0.500	NA	NA	NA
L-88-9																																									
May-89	05/19/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	08/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	<0.90	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/17/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/25/93	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-95	05/23/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
L-88-10																																									
May-89	05/23/89	156	31	183	1.3	<0.50	<0.50	<0.50	8.7	1.8	<1.0	1.8	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.9	<1.0	<1.0	<1.0
July-89	07/27/89	137	23	195	2.1	<1.0	<0.50	<0.50	18	1.8	1.8	1.1	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	8.7	NA	NA	NA
August-89	08/02/89	155	38	333	4.8	<0.50	<0.50	<0.50	28	1.6	<1.0	1.8	2.6	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
September-89	09/23/89	147	56	404	6.8	<1.0	<0.50	<0.50	56	2.2	<1.0	2.3	3.7	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	2.7	NA	NA	NA
October-89	10/20/89	146(141)	32(33)	459(454)	4.2(4.5)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	39(40)	2.1(2.1)	<1.0(<1.0)	2.6(2.8)	3.0(3.1)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
November-89	11/16/89	165(155)	26(27)	437(430)	3.3(3.3)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	65(41)	2.6(2.4)	<1.0(<1.0)	3.2(3.1)	2.5(2.7)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
December-89	12/26/89	131	22	250	3.7	<0.50	<1.0	<0.50	40	2.2	<1.0	2.4	2.5	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	209	26	368	3.5	<0.50	<0.50	<0.50	56	1.7	<1.0	2.5	1.8	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/19/90	177(174)	29(29)	294(335)	2.6(3.4)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	40(41)	1.6(1.5)	<1.0(<1.0)	2.3(2.3)	1.1(1.1)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
March-90	03/15/90	176	27	264	3.1	<0.50	<1.0	<0.50	27	1.3	<1.0	1.8	<1.0	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
June-90	06/28/90	112	22	230	2.5	<0.50	<0.50	<0.50	5.8	<1.0	<1.0	0.83	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
July-90	07/27/90	118	22	361	3.0	<0.50	<0.50	<0.50	2.1	1.4	<1.0	1.0	1.1	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/28/90	127	18	330	2.0	<0.50	<0.50	<0.50	26	1.8	<1.0	1.8	2.8	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	118	18	380	3.1	<0.50	<0.50	<0.50	22	1.2	<1.0	1.4	1.2	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	178	21	220	1.8	<0.50	<0.50	<0.50	6.6	1.8	<1.0	2.5	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	66	19	100	1.5	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/28/91	69	19	NA	3.2	<0.50	<0.50	<0.50	17	<1.0	<1.0	2.0	2.7	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	63	19	200	1.4	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<0.50	2.7	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	113	16	100	1.3	<0.50	<0.50	<0.50	17	1.8	<1.0	1.3	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/28/92	71	14	100	1.3	<0.50	<0.50	<0.50	7.1	<1.0	<1.0	0.90	2.2	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	12/02/92	41	20	100	1.5	<0.50	<0.50	<0.50	13	1.2	<1.0	1.7	4.5	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/24/93	84	15	90	1.5	<0.50	<0.50	<0.50	1.5	1.2	<1.0	1.9	2.6	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/24/93	47	15	37	1.5	<0.50	<0.50	<0.50	3.8	<1.0	<1.0	0.37	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-93	08/24/93	56	14	64	<1.0	<0.50	<0.50	<0.50	3.5	<1.0	<1.0	0.85	1.6	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/24/93	47	15	35	<1.0	<0.50	<0.50	<0.50	7.8	<1.0	<1.0	0.94	2.1	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	02/16/94	73	12	78	0.73	<0.50	<0.50	<0.50	4.5	<0.50	<0.50	1.8	1.2	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/09/94	45	11	44	0.41J	<0.50	<0.50	<0.50	0.39J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
August-94	08/22/94	47	13	42	0.66	<0.50	<0.50	0.66	7.2	0.72	<0.50	0.56	0.90	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-94	11/23/94	44	12	53	0.72	<0.50	<0.50	1.0	10	0.81	0.38J	1.2	3.7	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/01/95	56	11	38	0.60	<0.50	<0.50	0.54	9.3	0.74	0.25J	1.2	1.1	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	5/31/95	44E	12	37	0.43J	<0.50	<0.50	0.58	8.9	0.56	0.14J	0.86	0.66	<0.50	<0.50	<0.50	<0.50	<0.50	0.12J	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<0.50
August-95	08/23/95	29	12	22	0.39J	<0.50	<0.50	0.78	7.8	<0.50	0.28J	1.0	1.7	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2 Dichloroethene	trans 1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4 Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4 Trichlorobenzene	1,2,4 Trimethylbenzene	1,3,5 Trimethylbenzene
November-95	11/30/95	60	13	33	0.74	<0.50	<0.50	1.8	15	1.1	0.35J	1.5	4.8	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	30	11	18	1.2	<0.50	<0.50	0.81	3.4	0.37	0.13J	0.66	0.84	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-96	11/13/96	29	10	28	0.42J	<0.50	<0.50	1.8	15	0.83	0.22J	1.4	3.3	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	16	8.1	12	<0.50	<0.50	<0.50	0.34J	5.0	<0.50	<0.50	0.53	0.42J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
November-97	11/12/97	28	11	22	0.38J	<0.50	<0.50	1.0	3.3	0.67	0.29J	1.1	1.2	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-98	05/28/98	27	8.1	13	0.25J	<0.50	<0.50	0.84	3.2	0.35	0.19J	0.96	0.82	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
December-98	12/11/98	23	8.5	18	<1.0	<1.0	<1.0	1.7	8.4	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-99	05/04/99	29	8.4	13	0.31J	<0.50	<0.50	<0.50	1.9	0.45J	<0.50	0.66	0.25J	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-99	11/10/99	29	6.7	18	0.31J	<0.50	<0.50	1.1	2.8	0.64	0.29J	1.1	1.8	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/18/00	24	7.2	8.1	0.24J	<0.50	<0.50	0.46J	1.4	0.43J	<0.50	0.39	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/23/00	23	1.6	6.6	<0.50	<0.50	<0.50	0.31	1.9	<0.50	<0.50	0.62	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-00	11/14/00	24	7.8	14	0.30J	<0.50	<0.50	0.67	3.0	0.36	<0.50	0.66	0.26J	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/17/01	22(22)	7.2(7.0)	8.1(8.0)	0.21J(0.21J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	0.75(0.75)	0.32J(0.34J)	<0.50(<0.50)	0.53(0.51)	0.10J(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-01	11/26/01	28	7.9	13	0.35J	<0.50	<0.50	1.0	8.1	0.39	0.23J	1.2	1.5	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	23	8.1	7.8	0.27J	<0.50	<0.50	<0.50	1.1	0.31J	<0.50	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/18/02	25	1.9	15	0.33J	<0.50	<0.50	<0.50	4.7	0.36	0.23J	1.2	0.56	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	0.098J	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
June-03	06/27/03	18	5.1	6.2	<0.50	<0.50	<0.50	<0.50	1.7	<0.50	<0.50	0.46J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-03	11/07/03	21.4	5.63	12.0	<0.500	<0.500	<0.500	1.14	5.23	<0.500	<0.500	1.07	0.630	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	NA	NA	NA	<0.500	<0.500	NA	<2.50	<1.00	NA	NA	NA	NA	NA	<1.00	<0.500	<0.500	NA	NA	NA
L-88-11																																									
January-89	01/04/89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-89	05/18/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	08/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/11/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/24/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-88-12																																									
May-89	05/22/89	253	4.9	2.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<2.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/02/89	197	4.3	2.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	258	4.1	2.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/10/90	171	5.8	2.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	320	3.5	1.5	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	166	1.8	1.1	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	166(166)	3.8(4.0)	2.0(1.7)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-91	08/22/91	290	2.8	1.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	128	2.9	2.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/21/91	170(130)	3.7(5.0)	1.5(2.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
February-92	02/25/92	138(120)	4.4(2.7)	1.3(1.3)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-92	05/26/92	121(127)	3.4(3.4)	1.2(1.2)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
L-88-13																																									
May-89	05/22/89	55	7.6	6.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	85	8.1	8.1	<1.0	<0.50	<0.50	<0.50	<1.0	1.8	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/26/89	89	11	17	<1.0	<0.50	<0.50	<0.50	5.2	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-89	08/01/89	86(82)	14(14)	24(23)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	3.6(3.5)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-89	09/23/89	86	14	27	<1.0	<0.50	<0.50	<0.50	2.2	<1.0	<1.0	<0.50	1.8	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	86	14	21	<1.0	<0.50	<1.0	<0.50	2.9	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/18/89	86	12	19	<1.0	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	64	18	13	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	35	11	15	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/15/90	86	8.8	9.9	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	43	8.3	7.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
April-90	04/19/90	41	7.0	9.7	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/28/90	77	15	34	<1.0	<0.50	<0.50	<0.50	3.7	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/27/90	68	13	23	<1.0	<0.50	<0.50	<0.50	2.3	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	68	13	8.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	41	8.3	5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/22/91	64	14	38	1.8	<0.50	<0.50	<0.50	4.8	<1.0	<1.0	<0.50	1.2	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/20/91	22	7.7	38	<1.0	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/26/92	19	5.6	14	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/03/92	26	6.9	4.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/24/93	21	3.3	2.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/09/94	18	2.8	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	0.17J	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	05/31/95	18	3.4	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	0.31J	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/21/96	18	2.3	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-97	05/29/97	15	3.4	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-99	05/04/99	13	1.3	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/23/00	11(11)	1.8(1.8)	0.63(0.64)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-01	05/17/01	9.8	1.4	0.37J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/16/02	8.6(8.4)	1.3(1.3)	0.36J(0.34J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
June-03	06/27/03	11	1.3	0.79	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
LB-6																																									
December-90	12/11/90	0.74	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
January-91	12/28/90	0.82	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
LG-10																																									
August-89	08/15/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/25/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/17/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/21/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
April-90	04/20/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/22/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/30/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-90	09/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
October-90	10/26/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	0.64	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-90	12/28/90	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-91	02/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-91	03/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-91	04/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-91	05/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-91	06/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-91	07/23/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-91	08/22/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-91	09/25/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-91	10/24/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-91	11/18/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-91	12/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-92	01/21/92	<0.50	<0.50	<1.0	<1.0	0.54	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-92	02/27/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-92	03/31/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-92	05/03/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-92	06/04/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-92	06/29/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
LS-6																																									
January-89	01/04/89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-89	05/23/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/05/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0
May-90	05/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
August-90	08/29/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.6	<1.0	<1.0	<1.0	NA	NA	<1.0	2.7	<1.0	1.6	<1.0	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	1.1
November-90	11/27/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	1.2	<0.50	1.3	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	NA	NA	<1.0	17	NA	<1.0	5.8	4.3	<1.0	1.2	4.4	2.2	<1.0	<1.0	<1.0	<1.0	12	3.0
February-91	02/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	NA	NA	NA	NA	<1.0	<1.0	<1.0	7.2	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	NA	NA	NA	NA	<1.0	<1.0	5.2	<1.0	1.2	<1.0	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	1.8
November-91	11/19/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	3.7	NA	NA	NA	NA	1.0	<1.0	3.0	<1.0	1.9	<1.0	5.1	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	1.7
February-92	02/25/92	1.4	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/26/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/25/93	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	1.0(<1.0)	1.1(3.8)	<1.0(<1.0)	<1.0(<1.0)	2.3(1.4)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
May-94	05/04/94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
May-95	06/01/95	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.39J	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	0.26J	0.61	1.5	0.18J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
LS-7																																									
May-89	05/22/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/18/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/24/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
LS-8																																									
May-89	05/19/89	146	28	63	1.2	<0.50	<0.50	<0.50	27	<1.0	<1.0	3.6	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-89	06/23/89	124	18	69	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
July-89	07/26/89	136(165)	14(16)	43(43)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
August-89	09/02/89	98	18	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	86	6.1	17	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	96	5.7	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	124	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	61	6.6	13	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/20/89	124	18	47	1.2	<0.50	<0.50	<0.50	3.4	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
January-90	01/20/90	126	22	110	3.4	<0.50	<0.50	<0.50	34	<1.0	<1.0	3.6	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/19/90	124	18	128	3.4	<0.50	<0.50	0.50	66	<1.0	<1.0	3.7	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	109	18	87	3.4	<0.50	<1.0	<0.50	51	<1.0	<1.0	3.6	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	138(140)	25(27)	118(118)	2.7(2.5)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	40(44)	<1.0(<1.0)	<1.0(<1.0)	3.1(4.9)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
May-90	05/23/90	100	18	127	3.4	<0.50	<0.50	<0.50	38	<1.0	<1.0	3.6	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	<1.0	18	87	1.3	<0.50	<0.50	<0.50	6.3	<1.0	<1.0	3.6	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
July-90	07/27/90	118	11	56	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/29/90	50	7.1	15	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/27/90	74	5.0	12	<1.0	<0.50	<0.50	<0.50	3.3	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/21/91	120	18	110	3.4	<0.50	<0.50	<0.50	38	<1.0	<1.0	5.4	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	118	14	110	1.1	<0.50	<0.50	<0.50	23	<1.0	<1.0	3.6	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	56	7.4	28	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/19/91	48	3.7	6.7	<1.0	<0.50	<0.50	<0.50	2.6	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	74	13	78	3.4	<0.50	<0.50	<0.50	28	<1.0	<1.0	3.7	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/29/92	66(73)	8.1(10)	52(54)	1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	5.6(5.3)	<1.0(<1.0)	<1.0(<1.0)	1.1(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
August-92	08/27/92	66	4.7	12	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p-Xylene	o-Xylene	m&p-Xylene	Xylenes, total	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,3-Dichloropropene	Trichlorofluoromethane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
LS-10																																									
January-89	01/04/89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/30/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/28/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/20/91	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	03/03/92	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
LS-11																																									
May-89	05/19/89	113(143)	17(19)	58(55)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
December-88	12/27/89	63	17	63	2.8	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
June-89	06/23/89	164	13	68	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/01/89	23	30	163	19	<0.50	<0.50	<0.50	167	<1.0	2.7	28	<1.0	0.89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
September-89	09/23/89	17	34	109	31	<0.50	<0.50	<0.50	275	1.2	3.3	36	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
October-89	10/20/89	11	19	84	26	<0.50	<1.0	1.7	310	1.2	3.3	43	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-89	11/16/89	13	23	72	17	<0.50	<0.50	0.71	345	1.2	2.9	39	<1.0	0.83	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
December-89	12/26/89	63(62)	17(17)	63(61)	2.6(2.8)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	0.8(1.1)	<1.0(<1.0)	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	NA	NA	NA	NA	NA	NA	NA	<1.0(<1.0)	<1.0(<1.0)	NA	NA	NA
January-90	01/20/90	73	18	89	3.3	<0.50	<0.50	<0.50	77	<1.0	<1.0	18	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-90	02/17/90	60	17	80	<1.0	<0.50	<0.50	<0.50	17	<1.0	<1.0	5.2	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
March-90	03/15/90	7.1	17	96	1.1	<0.50	<1.0	<0.50	33	<1.0	<1.0	19	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
April-90	04/19/90	61	73	72	1.1	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	1.1	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-90	05/23/90	80	16	88	<1.0	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	1.1	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-90	06/28/90	99	14	78	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
August-90	08/30/90	20	20	91	17	<0.50	<0.50	130	230	1.0	7.1	35	<1.0	0.71	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/29/90	7.1	28	NA	1.1	<0.50	<0.50	130	270	1.2	2.3	37	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/20/91	61	73	90	5.3	<0.50	<0.50	<0.50	120	1.1	1.8	36	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/23/91	64	73	57	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	45	73	93	NA	<0.50	<0.50	<0.50	130	<1.0	<1.0	36	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	93	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/19/91	8	93	NA	19	<0.50	<0.50	19	250	1.3	3	36	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	38	73	73	1.1	<0.50	<0.50	<0.50	44	<1.0	<1.0	1.1	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	05/29/92	73	73	38	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	1.1	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-92	08/27/92	14	73	54	13	<0.50	<0.50	0.83	230	<1.0	2.2	19	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-92	11/25/92	11	73	43	5.3	<0.50	<0.50	19	200	1.1	7.1	19	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-93	02/26/93	35	73	29	1.6	<0.50	<0.50	<0.50	46	<1.0	7.1	19	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	93	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-93	05/25/93	54	73	23	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-93	08/25/93	28	73	73	5.3	<0.50	<0.50	<0.50	150	1.1	2.2	36	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
November-93	11/22/93	4.4	6.0	73	1.1	<0.50	<0.50	<0.50	64	<1.0	7.1	19	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
February-94	03/18/94	41	9.4	NA	1.1	<0.50	<0.50	<0.50	90	<0.50	<0.50	17	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-94	05/09/94	39(41)	7.8(7.8)	18(19)	0.24J(0.25J)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	1.1(1.4)	<0.50(<0.50)	<0.50(<0.50)	0.87(1.1)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)
August-94	08/19/94	16(17)	11(12)	22(21)	3.0(3.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	65(87)	0.64(0.89)	2.1(2.3)	21(21)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
November-94	11/22/94	7.1	7.7	17	3.2	<0.50	<0.50	0.43J	73	0.75	2.0	36	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
February-95	03/02/95	33	7.9	73	0.71	<0.50	<0.50	<0.50	19	0.44J	0.76	19	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-95	06/02/95	37	6.3	73	0.16J	<0.50	<0.50	<0.50	0.29J	<0.50	<0.50	0.29J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	93	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
August-95	09/06/95	14	6.4	73	2.2	<0.50	<0.50	0.78	45	0.62	1.6	19	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-95	11/30/95	20	6.6	5.8	0.83	<0.50	<0.50	<0.50	39	<0.50	1.5	19	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/23/96	34(28)	6.8(6.7)	10(10)	<0.50	<0.50(<0.50)	<0.50(<0.50)	<0.50	0.22J(0.21J)	<0.50(<0.50)	<0.50(<0.50)	0.28J(0.28J)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
May-97	05/28/97	25	3.8	5.0	<0.50	<0.50	<0.50	<0.50	3.4	<0.50	0.31J	4.6	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	93	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-99	05/06/99	17	7.2	7.8	0.24J	<0.50	<0.50	<0.50	1.5	<0.50	0.31J	2.9	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-00	05/17/00	14	5.8	3.5	<0.50	<0.50	<0.50	<0.50	2.4	<0.50	0.38J	3.0	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/18/01	20	4.3	3.6	<0.50	<0.50	<0.50	<0.50	1.6	<0.50	0.27J	2.8	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/14/02	17	4	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.28J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/30/03	33	4.6	3.8	<0.50	<0.50	<0.50	<0.50	0.96	1.7	<0.50	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																					
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2 Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m Xylene	p-Xylene	o Xylene	m&p-Xylene	Xylenes,total	Methylene Chloride	Naphthalene	n Butylbenzene	n-Propylbenzene	p Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1,3-Dichloropropene	Trichlorofluoromethane	1,2,4 Trichlorobenzene	1,2,4 Trimethylbenzene	1,3,5-Trimethylbenzene
O'Hara																																									
October-97	10/15/97	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
June-03	06/27/03	0.90	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
Persi																																									
August-89	08/01/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
June-03	06/27/03	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
POTW																																									
August-89	09/06/89	40	2.1	3.3	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/16/89	23	0.69	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/20/90	64	4.5	16	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/25/90	99	6.1	34	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/28/90	40	1.6	3.2	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-90	11/28/90	23	0.84	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-91	02/22/91	64	3.3	8.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	77	7.0	30	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	38	2.2	3.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-91	11/19/91	21	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-92	02/27/92	33	2.3	4.6	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	61	5.0	16	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Q Street																																									
May-89	05/30/89	0.66	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	1.0	<1.0	2.5	1.0	<1.0	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/06/89	0.95	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	0.71	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/20/90	0.54	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	06/06/90	0.76	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Rainbow																																									
May-88	05/26/88	33(34)	5.2(5.1)	8.9(7.3)	<1.0(<1.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	NA	NA	<1.0(<1.0)	<1.0(<1.0)	<0.50(<0.50)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)	<1.0(<1.0)
September-88	08/15/88	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	1.0	1.3	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-88	11/18/88	64	5.0	NA	<1.0	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
February-90	02/20/90	35	2.3	27	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-90	05/29/90	24	4.7	5.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-90	08/28/90	96	5.8	99	<1.0	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-91	05/31/91	61	4.7	7.9	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	1.3	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-91	08/21/91	72	15	74	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-92	06/02/92	20	3.9	11	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-93	05/27/93	11	1.9	3.8	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0	NA	NA	NA
May-94	05/10/94	10	1.9	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-96	05/30/96	11	1.8	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-01	05/16/01	4.7	0.87	0.50J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
November-01	11/28/01	15	5.0	3.6	<0.50	<0.50	<0.50	<0.50	0.39J	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
May-02	05/22/02	4.4	0.82	0.41J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	06/27/03	6.0	1.4	0.39	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
VE-50																																									
May-95	05/31/95	0.15J	16	47	2.2	<0.50	0.11J	29	34	<0.50	<0.50	3.8	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
Werner Street																																									
July-89	07/12/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
August-89	09/06/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
November-89	11/17/89	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 8

DETECTED VOLATILE ORGANIC COMPOUNDS
BN Livingston Facility

Well Name/ Sample Event	Sample Date	Analytes																																							
		Tetrachloroethene	Trichloroethene	cis 1,2 Dichloroethene	trans-1 2-Dichloroethene	1,1,1-Trichloroethane	1 1-Dichloroethane	Vinyl chloride	Chlorobenzene	1,2-Dichlorobenzene	1 3 Dichlorobenzene	1 4 Dichlorobenzene	2 Chlorotoluene	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Chloroform	Chloromethane	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	m-Xylene	p Xylene	o Xylene	m&p-Xylene	Xylenes total	Methylene Chloride	Naphthalene	n Butylbenzene	n Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans 1 3 Dichloropropene	Trichlorofluoromethane	1 2 4 Trichlorobenzene	1 2 4-Trimethylbenzene	1,3,5 Trimethylbenzene
MW-10																																									
June-03	05/31/90	**0.96**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
MW-11																																									
May-90	05/31/90	<0.50	<0.50	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-02	05/16/02	**8.7**	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
June-03	07/01/03	**3.8**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
MW-12																																									
November-01	11/29/01	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	NA	NA	NA
May-02	05/17/02	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA
November-02	11/20/02	2.2(2.0)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	NA	NA	NA	NA	NA	NA	NA	<0.50(<0.50)	<0.50(<0.50)	NA	NA	NA
June-03	06/27/03	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	<0.50	<0.50	NA	<0.50	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	NA	NA	NA

Notes

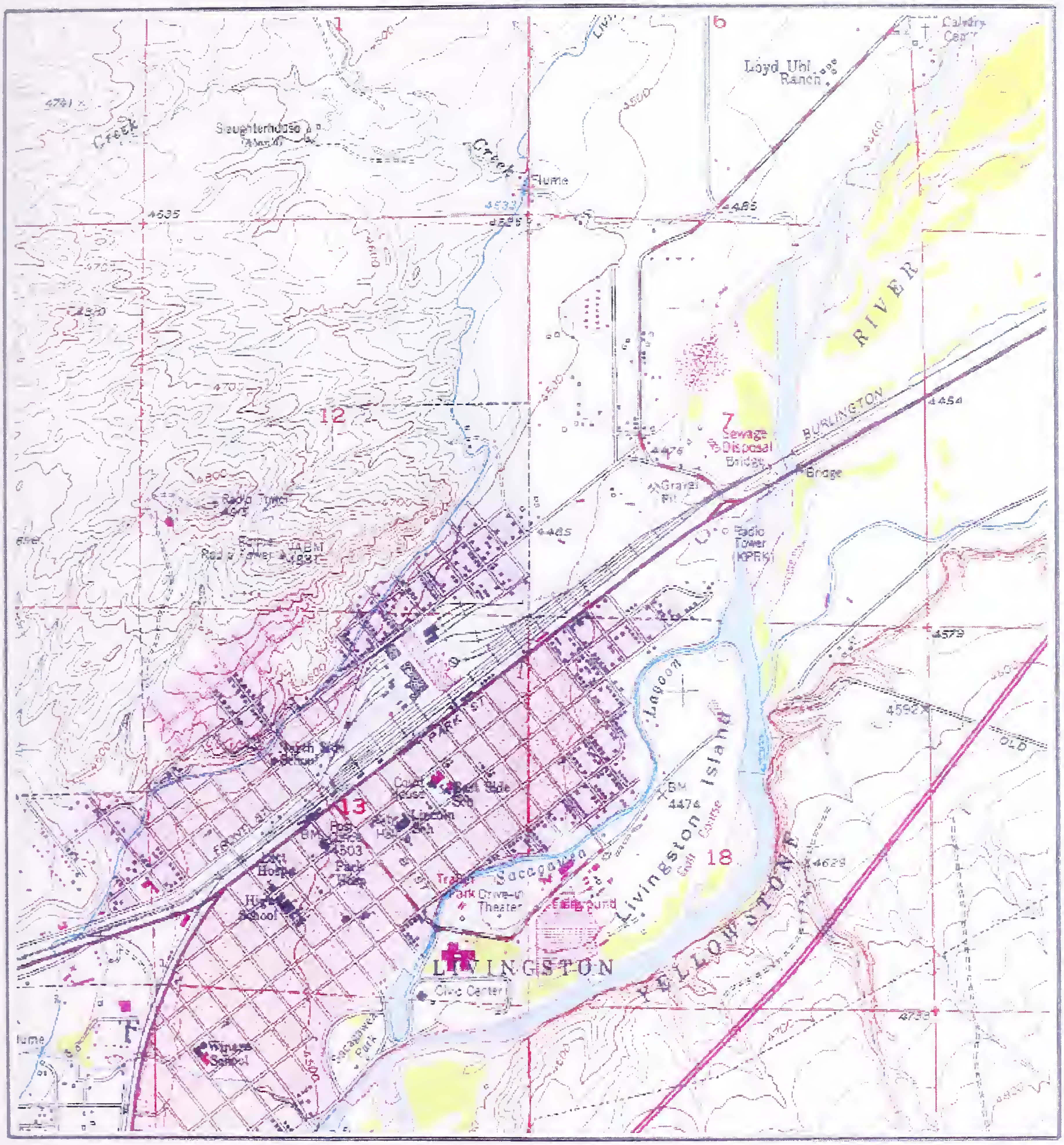
(a) "<" denotes analyte was not detected at the indicated reporting limit.
(b) "NA" = Not Analyzed

(c) The number in parentheses represents the analytical result for a duplicate sample

(d) "J" indicates an estimated value below the reporting limit.

(e) All samples were analyzed by using EPA Method 524.2, 624, or 8260B
Concentrations detected above the detection limit are shown in bold.

Figures



0 1000 2000 4000

APPROXIMATE SCALE IN FEET

N

REFERENCE: USGS 7.5' TOPOGRAPHIC
QUADRANGLE LIVINGSTON, MONTANA 1951
PHOTO REVISED 1981

Kennedy/Jenks Consultants

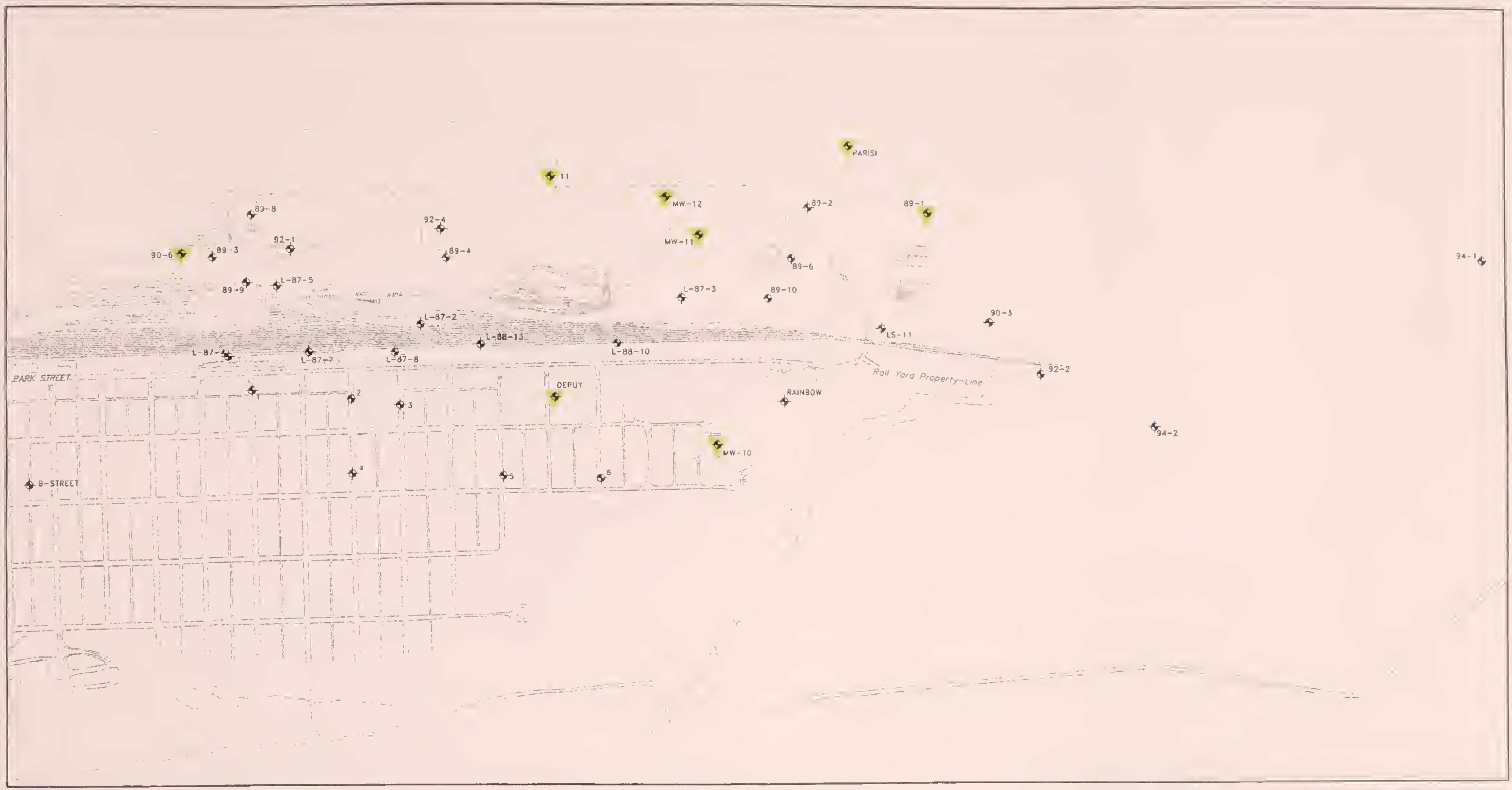
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

VICINITY MAP

APRIL 2004

026021 16/FIG_1.CDR

FIGURE 1



LEGEND

L-88-13 ✧ MONITORING, MUNICIPAL, OR PRIVATE WELL

89-1 ✧ WELLS SAMPLED; NOT PART OF FORMAL GROUNDWATER SAMPLING NETWORK

LIVINGSTON RAIL YARD BOUNDARY

N

0 350 700
APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

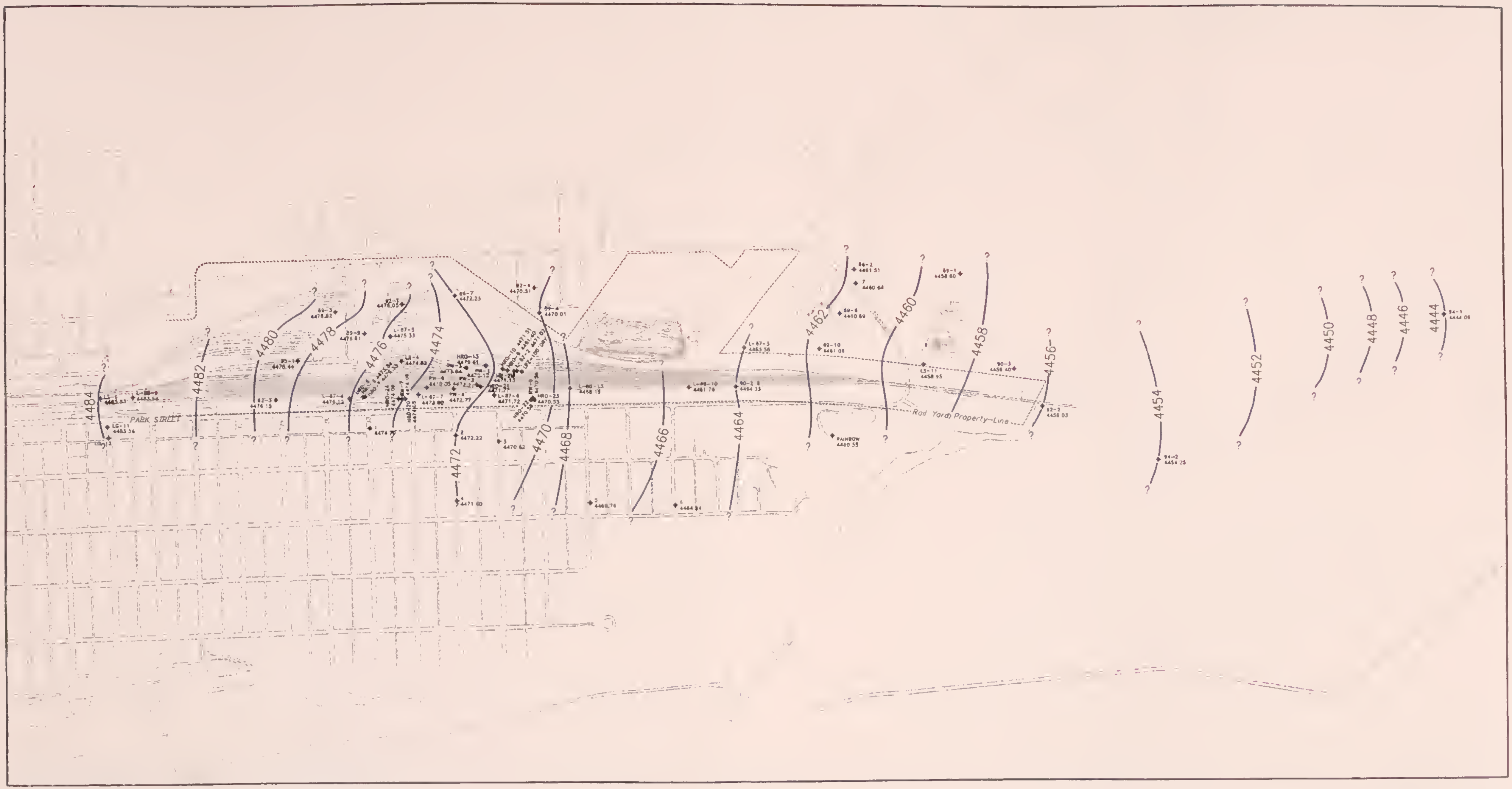
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

GROUNDWATER SAMPLING LOCATIONS

026021.16-FIG_2.DWG

APRIL 2004

FIGURE-2



LEGEND

WELL & GROUNDWATER ELEVATION (FEET)

POTENTIOMETRIC SURFACE CONTOUR

LIVINGSTON RAILYARD BOUNDARY

0 400 800
APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

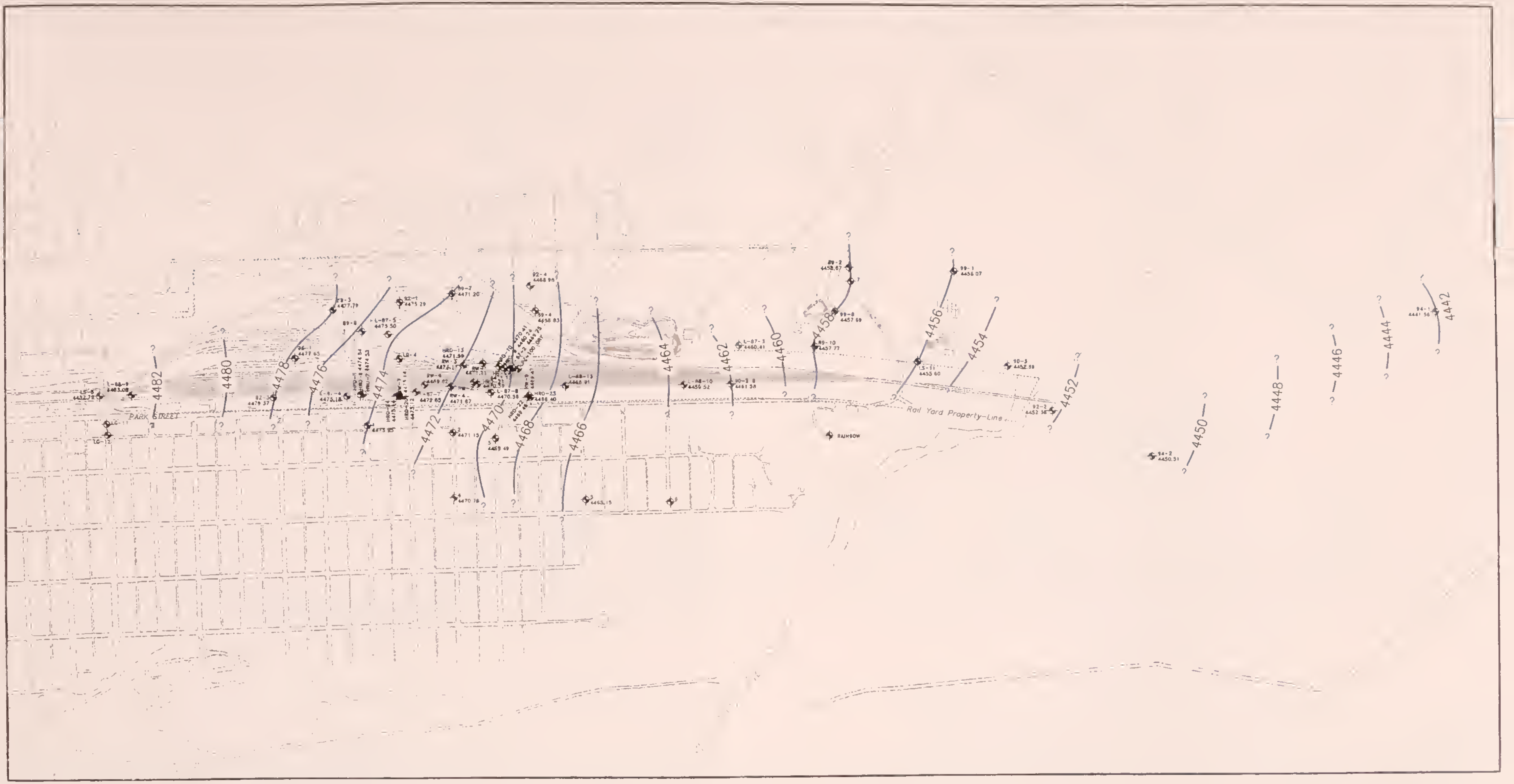
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

PIEZOMETRIC SURFACE ELEVATIONS
JUNE 2003

026021.16–FIG_3.DWG

APRIL 2004

FIGURE-3

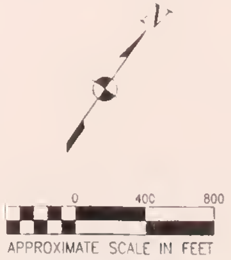


LEGEND

L-88-13 4468.31 ✦ WELL & GROUNDWATER ELEVATION (FEET)

?⁀4466⁀? POTENTIOMETRIC SURFACE CONTOUR

---- LIVINGSTON RAILYARD BOUNDARY



Kennedy/Jenks Consultants

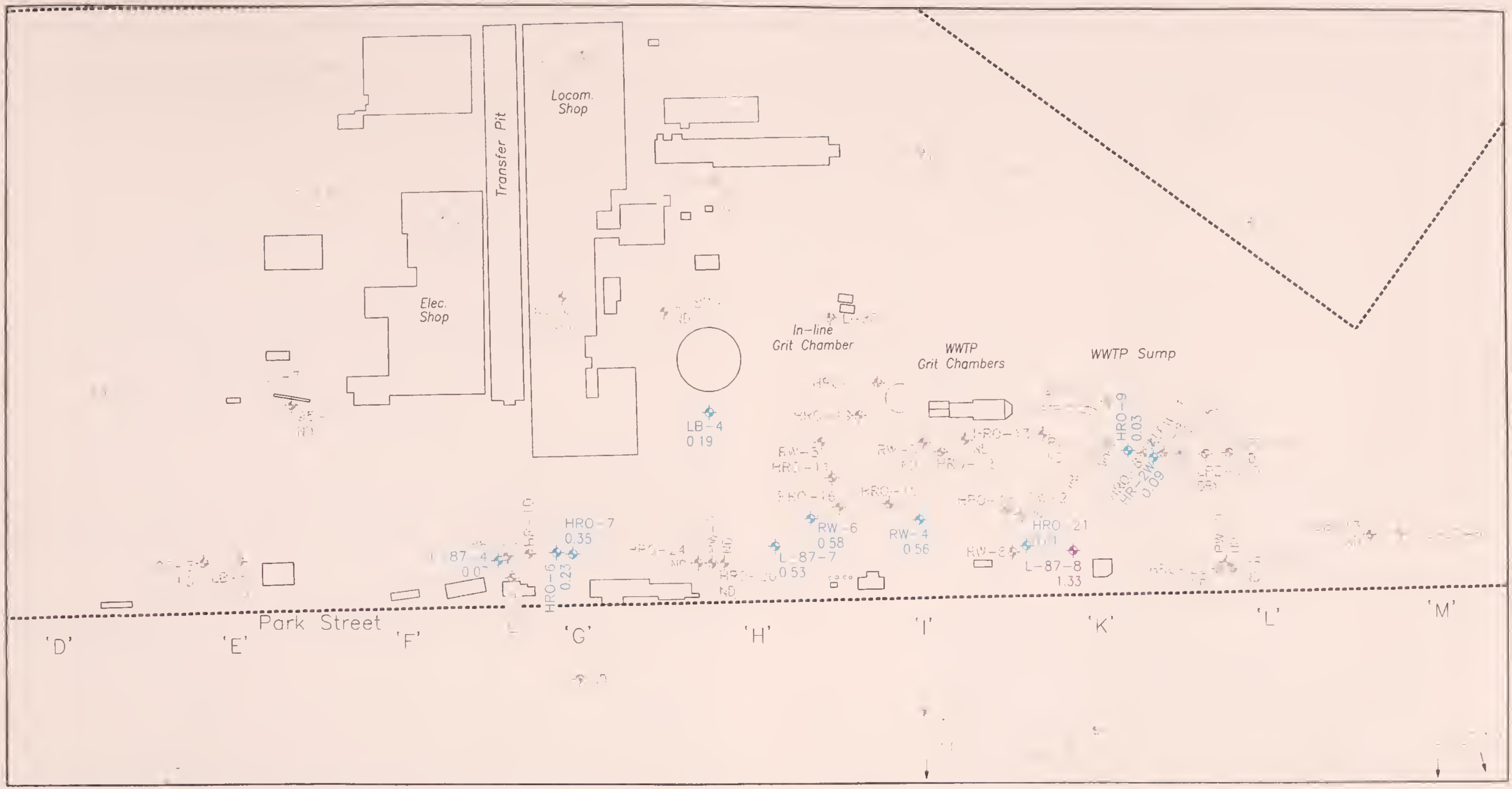
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

PIEZOMETRIC SURFACE ELEVATIONS
NOVEMBER 2003

026021 16-FIG_4.DWG

APRIL 2004

FIGURE-4



LEGEND

WELL WITH NO LNAPL MEASURMENT TAKEN

WELL WITH NO LNAPL DETECTED

L-87-8 1.33 >1 FOOT LNAPL THICKNESS

L-87-4 0.07 0.01-1.00 FOOT LNAPL THICKNESS

LIVINGSTON RAIL YARD BOUNDARY

0 100 200

APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

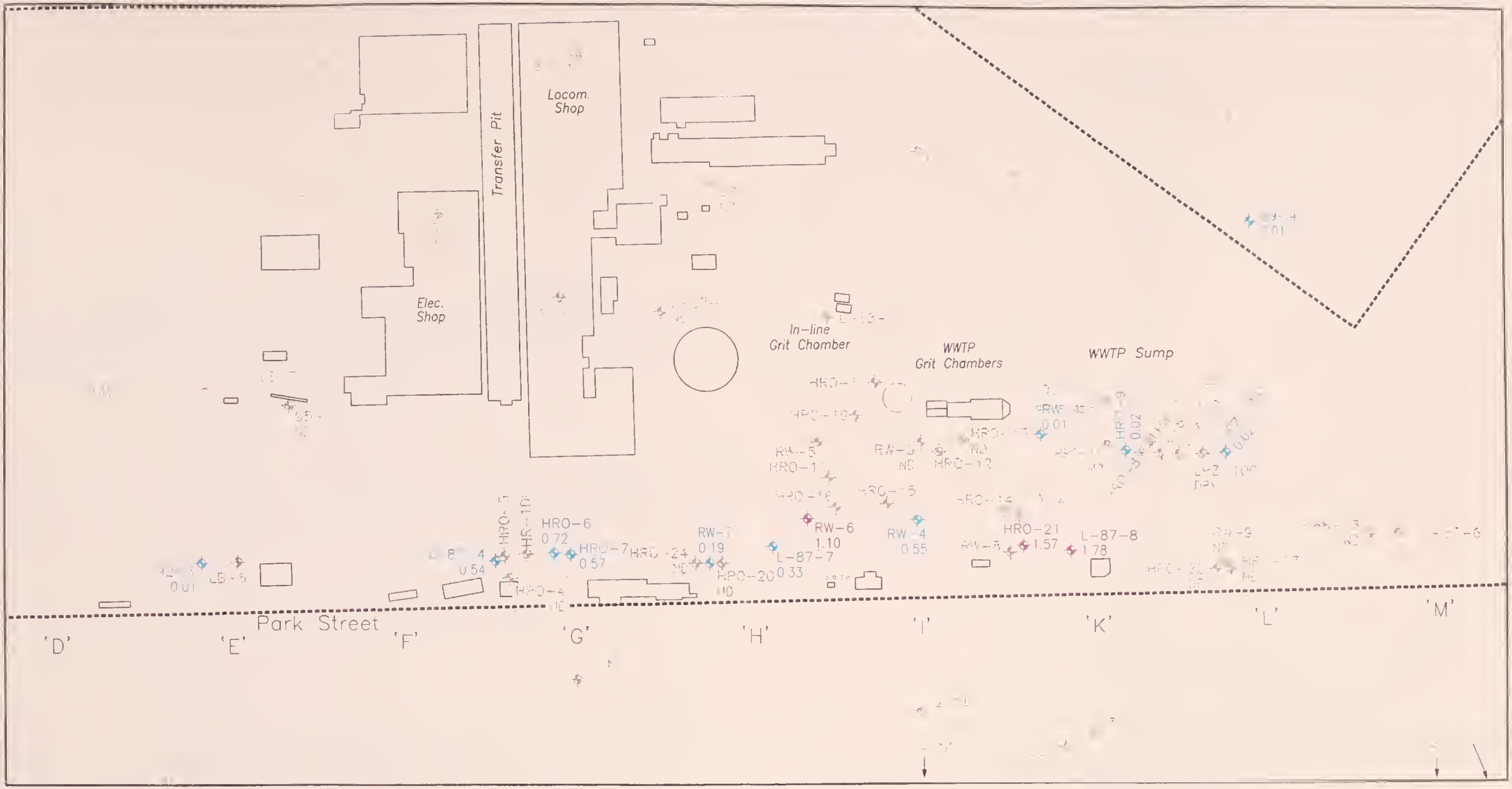
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

LNAPL DISTRIBUTION MEASUREMENTS
JUNE 2003

026021.16-FIG_5.DWG

APRIL 2004

FIGURE-5



LEGEND

- WELL WITH NO LNAPL MEASURMENT TAKEN
- WELL WITH NO LNAPL DETECTED
- L-87-8 1.78 ⌖ >1 FOOT LNAPL THICKNESS
- L-87-7 .33 ⌖ 0.01-1.00 FOOT LNAPL THICKNESS
- -------- LIVINGSTON RAIL YARD BOUNDARY

N

0 100 200
APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

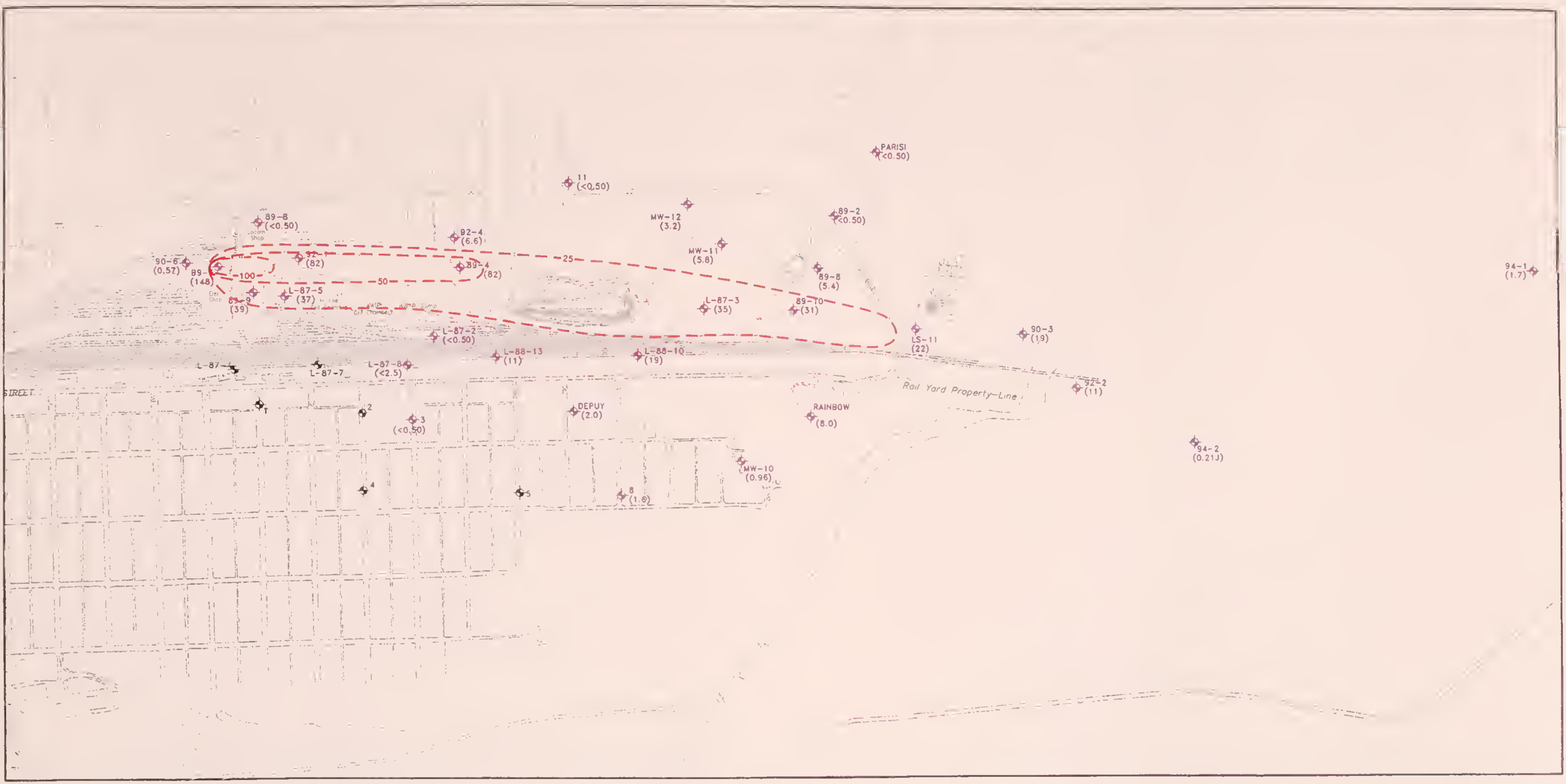
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

LNAPL DISTRIBUTION MEASUREMENTS
NOVEMBER 2003

026021.16-FIG_6.DWG

APRIL 2004

FIGURE-6



LEGEND

L-88-10 (19) ⌖ MONITORING WELL AND PCE CONCENTRATION (µg/L)

L-87-7 ⌖ MONITORING WELL (NO PCE MEASURMENT TAKEN)

INDICATES NO PCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

--25-- CONTOUR OF PCE CONCENTRATION (µg/L)

N

0 350 700

APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

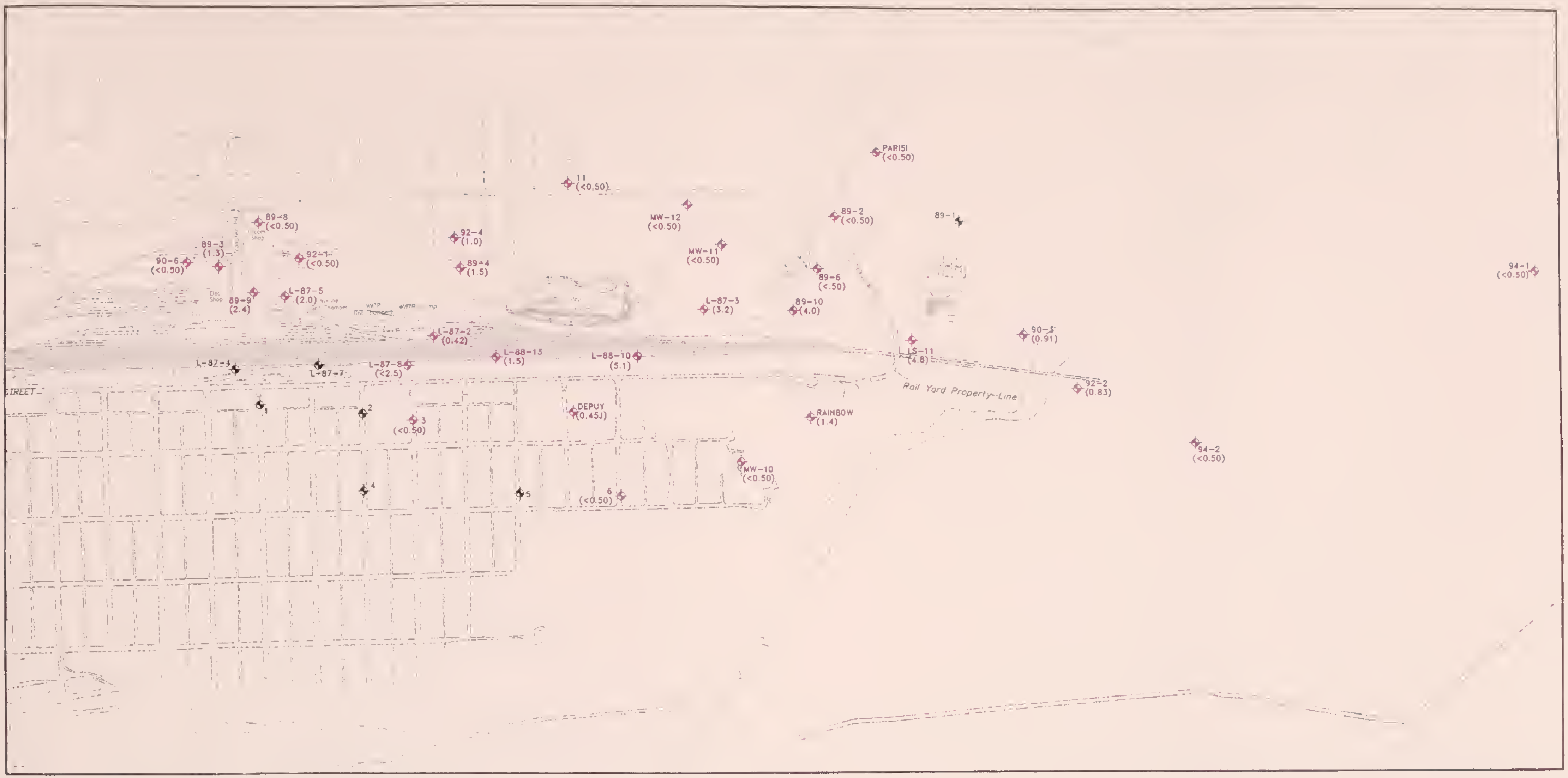
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

PCE CONCENTRATIONS
JUNE 2003

026021 16-FIG_7.DWG

APRIL 2004

FIGURE-7



LEGEND

L-88-10 (5.1) ✦ MONITORING WELL AND TCE CONCENTRATION (μg/L)

L-87-7 ✦ MONITORING WELL (NO TCE MEASURMENT TAKEN)

"<" INDICATES NO TCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

N

0 350 700
APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

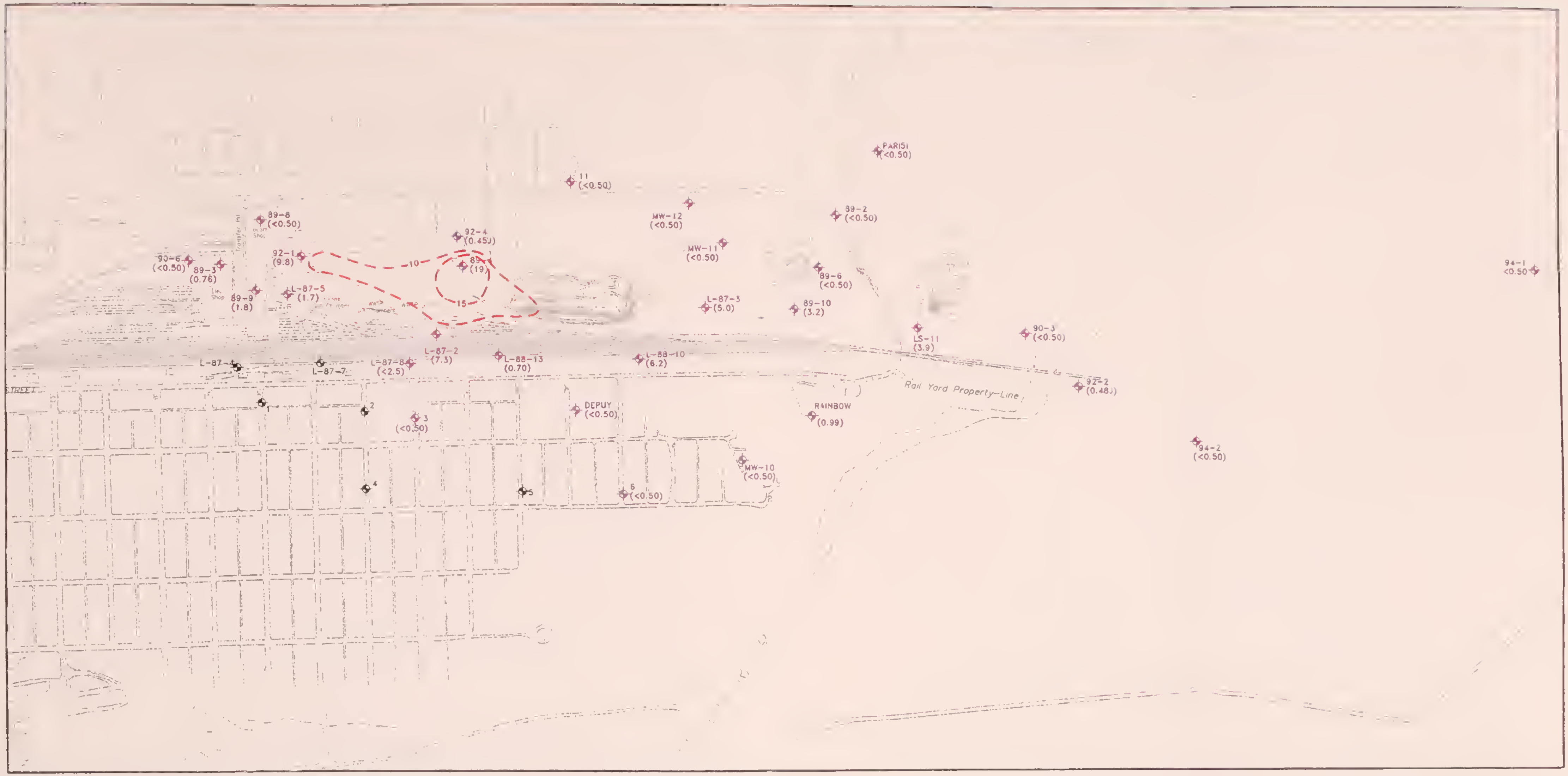
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

TCE CONCENTRATIONS
JUNE 2003

026021.16-FIG_8.DWG

APRIL 2004

FIGURE-8



LEGEND

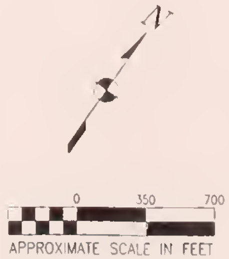
L-88-10 (6.2) ⊕ MONITORING WELL AND CIS-1,2-DCE CONCENTRATION (μg/L)

L-87-7 ⊕ MONITORING WELL (NO CIS-1,2-DCE MEASURMENT TAKEN)

"<" INDICATES NO CIS-1,2-DCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

--10-- CONTOUR OF CIS-1,2-DCE CONCENTRATION (μg/L)



Kennedy/Jenks Consultants

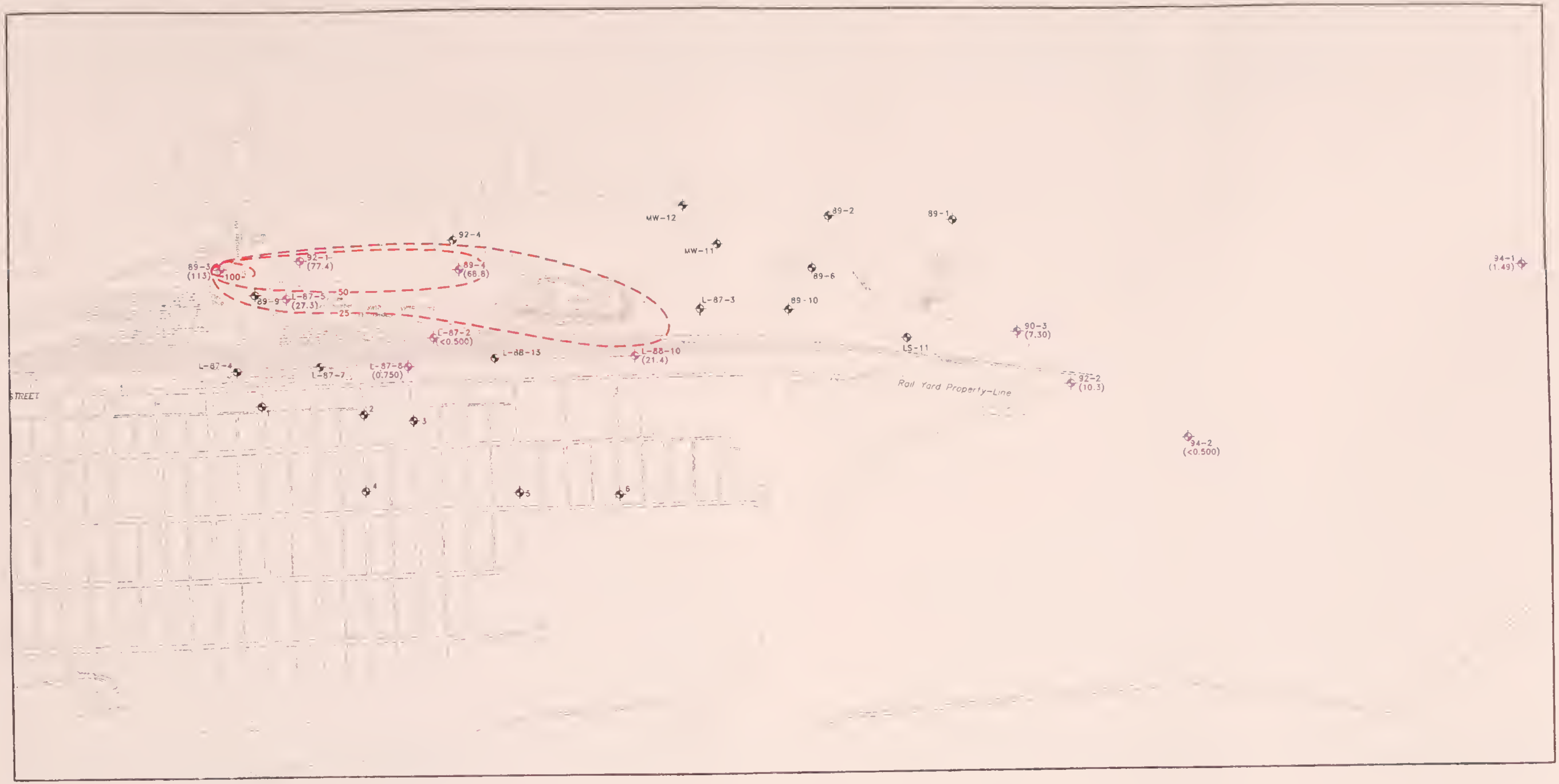
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

CIS-1,2-DCE CONCENTRATIONS
JUNE 2003

026021.16-FIG_9.DWG

APRIL 2004

FIGURE-9



LEGEND

L-88-10 (21.4) MONITORING WELL AND PCE CONCENTRATION (µg/L)

L-87-7 MONITORING WELL (NO PCE MEASURMENT TAKEN)

INDICATES NO PCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

--25-- CONTOUR OF PCE CONCENTRATION (µg/L)

0 350 700

APPROXIMATE SCALE IN FEET

Kennedy/Jenks Consultants

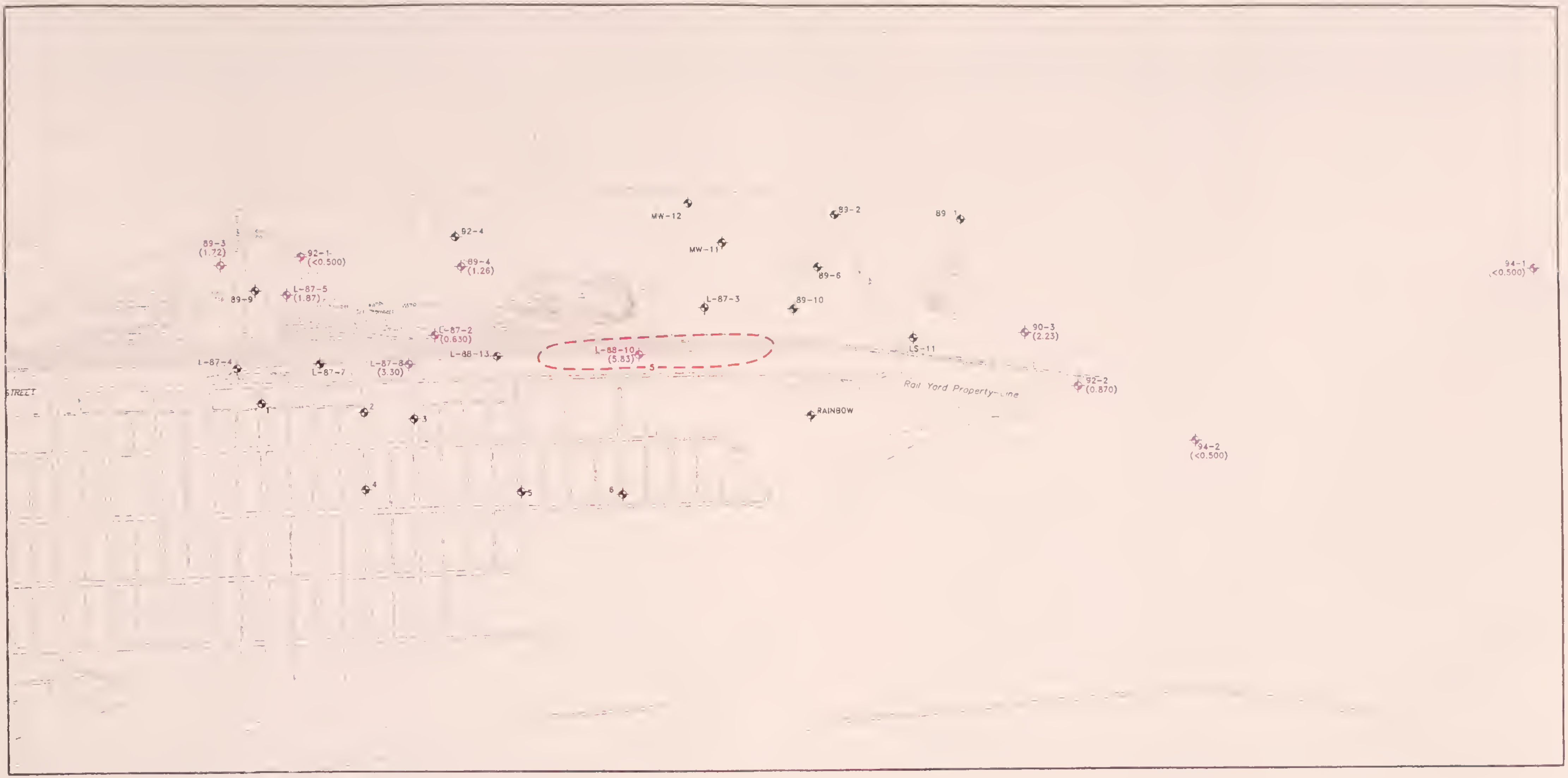
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

PCE CONCENTRATIONS
NOVEMBER 2003

026021.16-FIG_10.DWG

APRIL 2004

FIGURE-10



LEGEND

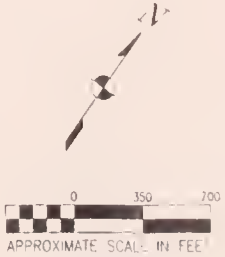
L-88-10 (5.83) MONITORING WELL AND TCE CONCENTRATION (µg/L)

L-87-7 MONITORING WELL (NO TCE MEASURMENT TAKEN)

"< INDICATES NO TCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

--5-- CONTOUR OF TCE CONCENTRATION (µg/L)



Kennedy/Jenks Consultants

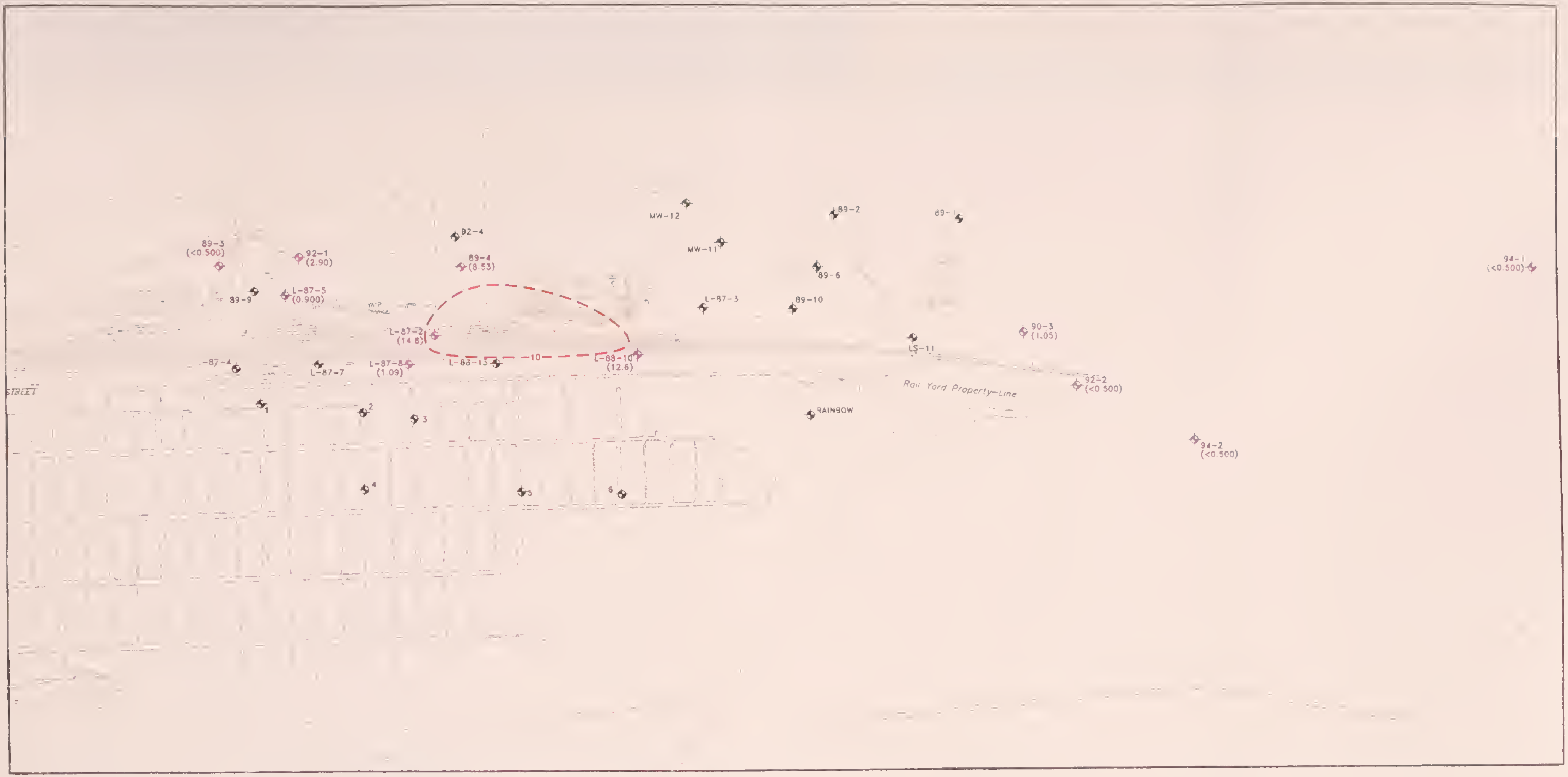
BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

TCE CONCENTRATIONS
NOVEMBER 2003

6021 16-FIG_11.DWG

APRIL 2004

FIGURE-11



LEGEND

L-88-10 (12.6) ✦ MONITORING WELL AND CIS-1,2-DCE CONCENTRATION (µg/L)

L-87-7 ✦ MONITORING WELL (NO CIS-1,2 DCE MEASURMENT TAKEN)

INDICATES NO CIS-1,2-DCE DETECTED

LIVINGSTON RAIL YARD BOUNDARY

--10-- CONTOUR OF CIS-1,2-DCE CONCENTRATION (µg/L)

Kennedy/Jenks Consultants

BNSF
LIVINGSTON RAILYARD
LIVINGSTON, MT

CIS-1,2-DCE CONCENTRATIONS
NOVEMBER 2003

026021.16-FIG_12.DWG

APRIL 2004

FIGURE-12

Appendix A

DEQ Letter Dated 24 April 2003

Montana Department of
ENVIRONMENTAL QUALITY
Judy Martz, Governor
P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

April 24, 2003

Mr. David Smith
Burlington Northern and Santa Fe Railway Company
139 North Last Chance Gulch
Helena, Montana 59601

Re: Livingston Shop Complex 2003 Groundwater Monitoring

Dear Mr. Smith:

As you know, the Montana Department of Environmental Quality (DEQ) is preparing a Statement of Work (SOW) to implement the selected remedy specified in the September 2001 Record of Decision (ROD) for the Burlington Northern and Santa Fe Railroad Company (BNSF) Livingston Shop Complex. Several tasks in the SOW involve groundwater sampling to monitor groundwater contaminant plumes. As part of these tasks, BNSF will need to revise its current groundwater monitoring program and establish task-specific monitoring well networks to better define and monitor the plumes.

We understand that the first 2003 groundwater sampling event for the Shop Complex is coming up. This presents a good opportunity to obtain key information that could be useful when preparing the monitoring plans that will be required by the SOW. After reviewing the 2002 Annual Ground Water Sampling Report, Livingston Rail Yard prepared by Envirocon, Inc., it is apparent that some areas of the VOC contaminant plume are not well defined. It also is apparent that certain groundwater wells can be eliminated from the monitoring program since they no longer add useful information. By eliminating some of the 2002 monitoring sites and adding several new sites for the upcoming 2003 monitoring event, BNSF could obtain information that is better suited for developing a strategy for future monitoring at the facility.

DEQ requests that BNSF make the following changes to the 2003 sampling work:

- Eliminate Well 1, Well 2, Well 4, Well 5, and B Street well from VOC sampling. These sites are no longer needed to define the extent of VOC contamination. Although the B Street site is a municipal water supply well, there has been no detectable VOC contamination in this well since 1989 and the well is upgradient from and outside of the apparent VOC plume boundary.
- Include Well 90-6 for VOC sampling. This site will help define the upgradient end of the VOC plume near the electric shop source area.
- Include Well 89-8 for VOC sampling. This site will help define the extent of groundwater VOC contamination immediately northwest of the electric shop source area.

- Include Well 11 for VOC sampling (if water is present). This site will help define the extent of groundwater VOC contamination along the west side of the plume.
- Include either private well Brown or private well Parisi for VOC sampling. Either of these sites will help define the extent of groundwater VOC contamination along the west side of the plume.
- Include private well MW-10 for VOC sampling. This site will help define the extent of groundwater VOC contamination along the east side of the plume.
- Include private well MW-2 or private well Depuy for VOC sampling. Either of these sites will help define the extent of groundwater VOC contamination along the east side of the plume.
- Include private well O'Hare for VOC sampling. Previous VOC sampling detected contamination at this site. This site will help define the extent of groundwater VOC contamination near the leading front of the plume.

We also request that you conduct the groundwater monitoring during high water table conditions (typically late June or early July based on 1994 RI information). This will represent the time of year when there is the greatest potential for contaminants to be mobilized from overlying soils. It also is the time that private irrigation wells become more active, which can artificially induce contaminant migration.

DEQ would like to emphasize that these changes to the 2003 monitoring event are not to be considered as permanent changes to BNSF's monitoring program. Rather, we request these changes to obtain information that will ultimately be needed for implementing the ROD selected remedy. The changes to this year's sampling site locations is simply a first step to help determine optimum monitoring sites based on known or suspected areas of contamination.

Feel free to call me at (406) 444-1438 if you would like to discuss these changes. I also would be pleased to meet with you in person to review these sites on a map.

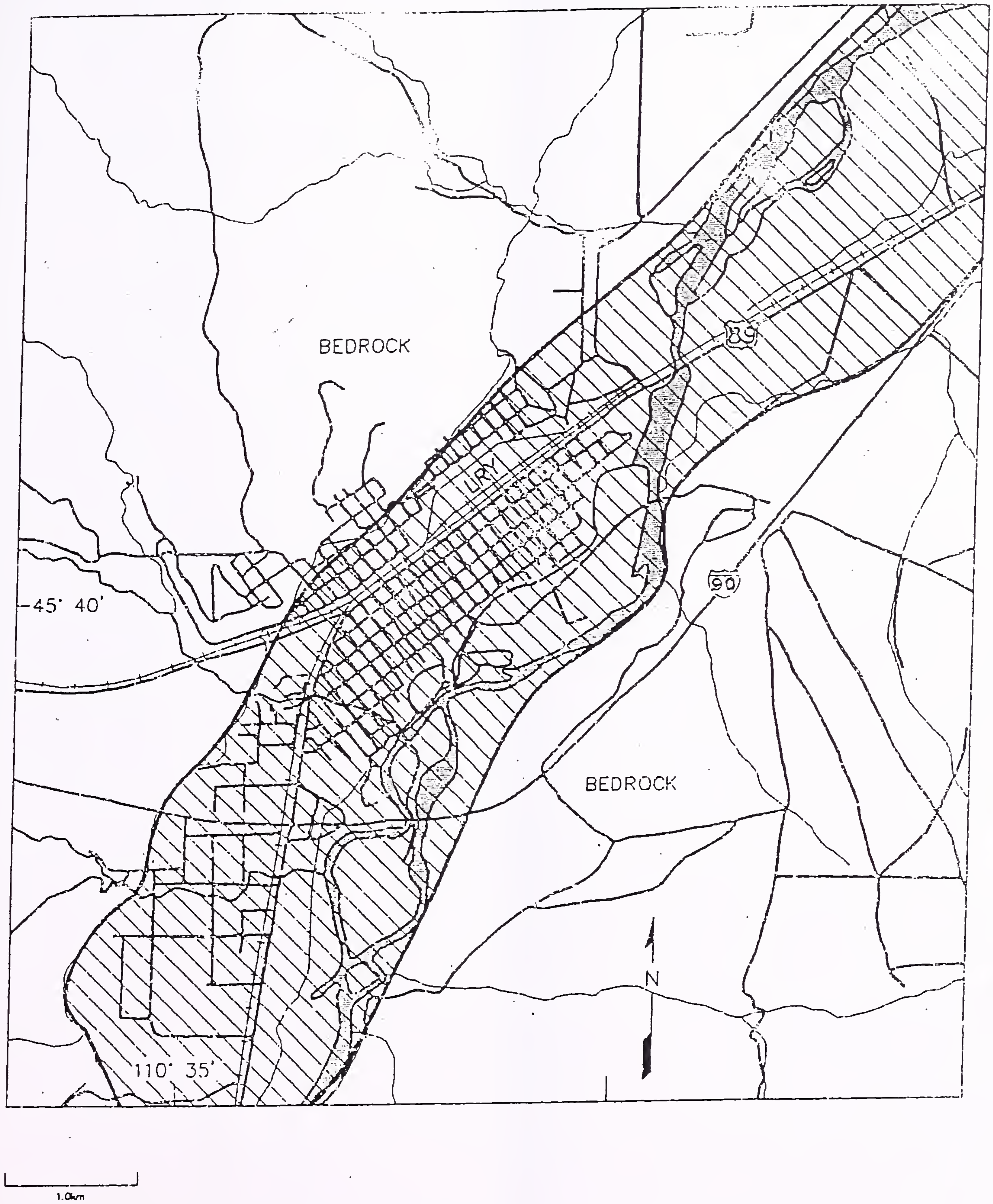
Sincerely,

Raymond Lazuk
Project Manager

c: Mary Capdeville
Brian Blicker, PCBC

Appendix B

Approximate Area of Livingston Aquifer



BURLINGTON NORTHERN

ENVIROCON, INC.

GROUND WATER SECTION
LIVINGSTON RAILYARD
REMEDIAL INVESTIGATION

APPROXIMATE AREA
OF
LIVINGSTON AQUIFER

AutoCAD FILE: GWRI-1.DWG_B

8/27/91

FIGURE 1.1

Appendix C

Field Sampling Forms

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: 90-3

PROJECT NUMBER: 026021.16

PERSONNEL: sch DMC

STATIC WATER LEVEL (FT): 6.92

MEASURING POINT DESCRIPTION:

WATER LEVEL MEASUREMENT METHOD: SML tape

PURGE METHOD: Bladder pump

TIME START PURGE: 11:00

PURGE DEPTH (FT) information not availible at this time

TIME END PURGE: 11:25

TIME SAMPLED: 11:25

COMMENTS: purged ≈5 gals for 3 casings

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6		CASING VOLUME (GAL)
	19.85	-	6.92	=	13	X	0.16	0.64	1.44	=	2.11

TIME	11:03	11:06	11:09	11:12	11:15	11:18	11:21
VOLUME PURGED (GAL)	0 gals	0.84 g	1.68	2.52	3.08	4.2	5 gals
PURGE RATE (GPM)	0.28	0.28	0.28	0.28	0,28	0.28	0.28
TEMPERATURE (°C)	11,30	11.21	11.21	11,25	11.45	11.41	11:32
pH	6.99	7.05	7.08	7.11	7.11	7.12	7.13
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	799	799	799	7.99	798	799	801
DISSOLVED OXYGEN (mg/L)	1.65	0.95	0.63	1.36	0.92	0.64	0.30
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TURBIDITY/COLOR	debree	possible	roots	/ clear	clear	clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NUMBER OF CASING VOLUMES REMOVED	–	–	–	1	–	2	~2.5
DEWATERED?	No	no	no	no	no	no	No

Groundwater Purge and Sample Form

Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: 90-3

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, D McC

SAMPLE DATA:

TIME SAMPLED: 11:25

COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
90-3	3	40mL	HCl	N	mL	clear	clear	yes	624	VOC

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 5

COMMENTS:

DISPOSAL METHOD: ground

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 89-9
PROJECT NUMBER: 0260 21.16
PERSONNEL: Sch, DMC

STATIC WATER LEVEL (FT): 19.60
MEASURING POINT DESCRIPTION: mark on TOC
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 12:41
PURGE DEPTH (FT) N/A
TIME END PURGE: 12:50
TIME SAMPLED: 1250
COMMENTS: 6.9 gals for 3 casings

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	33.8		19.60		14.2		0.16	0.64	1.44		2.3

TIME	1241	1244	1247	1250			
VOLUME PURGED (GAL)	0	2.31	4.62	6.9			
PURGE RATE (GPM)	0.77	0.77	0.77	0.77			
TEMPERATURE (°C)	10.58	10.64	10.63	10.63			
pH	7.26	7.26	7.26	7.27			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	176	727	726	724			
DISSOLVED OXYGEN (mg/L)	6.6	5.12	5.08	5.06			
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A			
TURBIDITY/COLOR	clear	clear	clear	clear			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A			
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A			
NUMBER OF CASING VOLUMES REMOVED	0	1	~2	3			
DEWATERED?	No	No	No	No			

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 89-9

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, DMC

SAMPLE DATA:

TIME SAMPLED: 12:50 COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-9	3	VOA	HCl	N	mL	—	clear	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 6.9 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? None

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 89-8
PROJECT NUMBER: 0266216
PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 18.32 to inner casing
to ground surface 18.83
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 12:55
PURGE DEPTH (FT) N/A
TIME END PURGE: 1:10
TIME SAMPLED: 1:10
COMMENTS: 7.4 gals for 3 casings, parameter measurement was taken after 3 casings were removed

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	33.83		18.32		15.51		0.16	0.64	1.44		2.48

TIME	1:10						
VOLUME PURGED (GAL)	7.4						
PURGE RATE (GPM)	N/A						
TEMPERATURE (°C)	12.12						
pH	7.38						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	909						
DISSOLVED OXYGEN (mg/L)	7.13						
eH(MV)Pt-AgCl ref.	N/A						
TURBIDITY/COLOR	brown slightly	turbid					
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	18.32						
DEPTH TO WATER DURING PURGE (FT)	18.32						
NUMBER OF CASING VOLUMES REMOVED	3						
DEWATERED?	NO						

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 89-8

PROJECT NUMBER: 026021.16 PERSONNEL: Jck, DMFC

SAMPLE DATA:

TIME SAMPLED: 1:10 COMMENTS:

DEPTH SAMPLED (FT): 18.32

SAMPLING EQUIPMENT: disposable bailer

SAMPLE NO.	NO. OF CONTAIN-ERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-8 [illegible]	3	VOA	HCl	no	mL	–	clear	yes	624 VOC	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 7.4 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: N/A

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: 893

PROJECT NUMBER: 026021.16

PERSONNEL: Sck, DMcC

STATIC WATER LEVEL (FT): 17.48

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 1:54

PURGE DEPTH (FT) N/A

TIME END PURGE: 2:15

≃ 7.7 gals for
3 casings

TIME SAMPLED: 2:15

COMMENTS:

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	33.5		17.48		16.02		0.16	0.64	1.44		2.6

TIME	1:54	1:57	2:00	2:05	2:10		
VOLUME PURGED (GAL)	0	1.44	2.88	5.28	7.7		
PURGE RATE (GPM)	0.48	0.48	0.48	0.48	0.48		
TEMPERATURE (°C)	10.68	10:53	10:51	10.49	10.49		
pH	7.35	7:33	7.34	7.36	7.37		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	741	736	728	725	723		
DISSOLVED OXYGEN (mg/L)	6.67	6.71	6.70	6.68	6.68		
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A	N/A		
TURBIDITY/COLOR	Clear	clear	clear	clear	clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A	N/A		
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	~1	2	3		
DEWATERED?	No	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: 89-3

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, DMcC

SAMPLE DATA:

TIME SAMPLED: 2:15pm

COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-3 [illegible]	3	VOA	HCl	No	mL	-	Clear	yes	624 VOC	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 7.4

COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: N/A

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston MT
WELL NUMBER: 90-6
PROJECT NUMBER: 026021.16
PERSONNEL: Sch, DMcC

STATIC WATER LEVEL (FT): 20.48
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 3:56
PURGE DEPTH (FT) N/A
TIME END PURGE: 4:09
TIME SAMPLED: 4:20
COMMENTS: 3 casings = 6.8 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							[✓ 2]	4	6		
	34.60		20.48		14.12		0.16	0.64	1.44		2.26

TIME	3:56	3:59	4:02	4:09			
VOLUME PURGED (GAL)	0	1.56	3.12	6.8			
PURGE RATE (GPM)	0.52	0.52	0.52	0.52			
TEMPERATURE (°C)	11.32	11.32	11.28	11.13			
pH	7.30	7.31	7.31	7.32			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	731	726	725	728			
DISSOLVED OXYGEN (mg/L)	7.33	7.47	7.56	7.58			
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A			
TURBIDITY/COLOR	clear	clear	Clear	Clear			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A			
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A			
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1.5	3			
DEWATERED?	No	No	No	No			

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston MT
WELL NUMBER: 90-6
PROJECT NUMBER: 026021.16
PERSONNEL: SCK DMC

SAMPLE DATA:
TIME SAMPLED: 4:20
COMMENTS:
DEPTH SAMPLED (FT): N/A
SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
90-6	3	VOA	HCl	no	mL	-	clr	yes	624	VOC

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 6.8
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):
WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO
INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO
WELL CASING OK?: [✓ YES] NO
COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 1/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 92-1
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 22.46
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder Pump
TIME START PURGE: 438
PURGE DEPTH (FT) N/A
TIME END PURGE: 454
TIME SAMPLED: 455
COMMENTS: 3 casing = 4.6 gallons H_2O

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	32.00	-	22.46	=	9.54	X	0.16	0.64	1.44	=	1.53

TIME	4 38	4:41	444	447	451	454	
VOLUME PURGED (GAL)	0	0.87	1.74	2.61	3.19	4.6	
PURGE RATE (GPM)	0.29	0.29	0.29	0.29	0.29	0.29	
TEMPERATURE (°C)	12.2	12.08	12.04	12.06	11.97	12.05	
pH	7.36	7.30	7.28	7.25	7.24	7.25	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	814	810	811	779	772	776	
DISSOLVED OXYGEN (mg/L)	6.80	6.81	7.28	7.04	6.95	6.93	
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A	N/A	N/A	
TURBIDITY/COLOR	Clear	clear	Clear	clear	clear	clear	
ODOR	none	none	none	none	none	none	
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A	N/A	N/A	
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A	N/A	
NUMBER OF CASING VOLUMES REMOVED	<1	<1	>1	<2	2	3	
DEWATERED?	No	No	No	No	No	No	

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, ATT WELL NUMBER: 92-1

PROJECT NUMBER: 026021.016 PERSONNEL: SCK ; DMC

SAMPLE DATA:

TIME SAMPLED: 455 COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
92-1	3	VOA	HCl	no	mL	–	cl	yes	624	VOC

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 4.6 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: L-87-5

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 23.14

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bailer

TIME START PURGE: 4:50

PURGE DEPTH (FT) 23 feet

TIME END PURGE: 5:10

TIME SAMPLED: 510

COMMENTS: Parameters were taken after 3 casing volumes were removed ~7 3casing = 2.8 gals

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	29		23.14		5.86		0.16	0.64	1.44		0.94

TIME	5.10						
VOLUME PURGED (GAL)	~2.8						
PURGE RATE (GPM)	N/A						
TEMPERATURE (°C)	11.80						
pH	7.46						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	802						
DISSOLVED OXYGEN (mg/L)	5.49						
eH(MV)Pt-AgCl ref.	N/A						
TURBIDITY/COLOR	slight turb/tan						
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	23						
DEPTH TO WATER DURING PURGE (FT)	23						
NUMBER OF CASING VOLUMES REMOVED	3						
DEWATERED?	No						

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-5
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

SAMPLE DATA:
TIME SAMPLED: 5:10
COMMENTS:
DEPTH SAMPLED (FT): 23
SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-87-5	3	VOA	HCl	no	mL	slight	tan	yes	624	VOC

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 2.8
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? None

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Rainbow
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 5.44 after purge @10:20
MEASURING POINT DESCRIPTION: @ TOC
WATER LEVEL MEASUREMENT METHOD: tap
PURGE METHOD: tap
TIME START PURGE: 8:10
PURGE DEPTH (FT) N/A
TIME END PURGE: 8:35
TIME SAMPLED: 8:35

COMMENTS: Pump ran for 25 mins before sample. Samples taken from tap. A lot of air in the water. Having problems w/ DO due to the aeration.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	8:25	8:28	8:31	8:35			
VOLUME PURGED (GAL)	N/A	N/A	N/A	N/A			
PURGE RATE (GPM)	N/A	N/A	N/A	N/A			
TEMPERATURE (°C)	10:34	10.46	10.61	10.16			
pH	6.65	7.07	7.22	7.03			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	764	765	767	782			
DISSOLVED OXYGEN (mg/L)	9.17	9.34	9.52	5.13			
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A			
TURBIDITY/COLOR	Clear	clear	clear	clear			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	N/A			
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A			
NUMBER OF CASING VOLUMES REMOVED	N/A	N/A	N/A	N/A			
DEWATERED?	No	No	No	NO			

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Rainbow
PROJECT NUMBER: 0260021.16
PERSONNEL: SCK, DMC

SAMPLE DATA:
TIME SAMPLED: 8:35
COMMENTS:
DEPTH SAMPLED (FT): N/A
SAMPLING EQUIPMENT: tap

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
Rainbow	3	VOA	HCl	no	mL	-	cl	yes	624	VOC

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): N/A
COMMENTS:
DISPOSAL METHOD: irrigation to field
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):
WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO
INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES NO N/A
WELL CASING OK?: YES NO N/A
COMMENTS:

GENERAL:
WEATHER CONDITIONS: clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? Sample from tap; can't get good water level measurement

cc: Project Manager:
Job File:
Other:

1 of 2

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: MW-12
PROJECT NUMBER: 026021.06
PERSONNEL: Sch DMC

STATIC WATER LEVEL (FT): 20.65
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 9:09
PURGE DEPTH (FT) ≈20ft
TIME END PURGE: 9:55
TIME SAMPLED: 9:55
1 gal = 4 bailers
COMMENTS: Twelve gallons were purged. Stopped purging due to stable parameter readings.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							[✓ 2]	4	6		
	64.5		20.65		43.85		0.16	0.64	1.44		7

TIME bailers	4	6	10	14	18	22	26
VOLUME PURGED (GAL)	1	1.5	2.5	3.5	4.5	5.5	6.5
PURGE RATE (GPM)	n/A	n/A	n/A	n/A	n/A	n/A	n/A
TEMPERATURE (°C)	11.88	11.70	11.68	11.67	11.66	11.56	11:56
pH	6.96	6.89	6.52	6.47	6.44	6.56	6.78
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	305	303	300	305	319	450	581
DISSOLVED OXYGEN (mg/L)	6.94	6.74	5.55	4.74	6.44	3.38	3.79
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	n/A	N/A	N/A	N/A
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	20	20	20	20	20	20	20
DEPTH TO WATER DURING PURGE (FT)	n/A	n/A	N/A	N/A	N/A	N/A	N/A
NUMBER OF CASING VOLUMES REMOVED	-	-	-	-	-	-	-
DEWATERED?	no	no	no	no	no	no	no

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston WELL NUMBER: MW-12

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, D McC

SAMPLE DATA:

TIME SAMPLED: 9:55 COMMENTS:

DEPTH SAMPLED (FT): ~20 ft

SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
MW-12	3	VOA	HCl	no	mL	~~clear~~	clear	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 12.5 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

2/2

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: MW-12
PROJECT NUMBER: 0260021.16
PERSONNEL: Sch, DMcC

STATIC WATER LEVEL (FT): 20.65
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 909
PURGE DEPTH (FT) ≈ 20 ft
TIME END PURGE: 955
TIME SAMPLED: 955
COMMENTS: parameter reading continue

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							[✓ 2]	4	6		
	64.5		20.65		43.85		0.16	0.64	1.44		7

TIME Bailers	30	34	38	42	46	50	
VOLUME PURGED (GAL)	7.5	8.5	9.5	10.5	11.5	12.5	
PURGE RATE (GPM)	N/A	N/A	N/A	N/A	N/A	N/A	
TEMPERATURE (°C)	11.51	11.56	11.60	11.57	11.67	11.8	
pH	6.88	6.96	6.98	6.98	6.45	6.99	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	669	724	747	761	766	767	
DISSOLVED OXYGEN (mg/L)	4.57	5.38	5.90	6.26	6.44	6.63	
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A	N/A	N/A	
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	
ODOR	none	nono	now	none	none	none	
DEPTH OF PURGE INTAKE (FT)	~20	20	20	20	20	20	
DEPTH TO WATER DURING PURGE (FT)	~20	20	20	20	20	20	
NUMBER OF CASING VOLUMES REMOVED	1	-	-	-	-	~2	
DEWATERED?	no	no	no	no	no	no	

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston WELL NUMBER: MW-12

PROJECT NUMBER: 026021.03 PERSONNEL: Sole DMcC

SAMPLE DATA:

TIME SAMPLED: 9:55 COMMENTS:

DEPTH SAMPLED (FT): ~20 ft

SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
MW-12	3	VOA	HCl	no	mL	-	CL	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 12.5 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): n/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 89-2
PROJECT NUMBER: 026021.16
PERSONNEL: Sck, DMcC

STATIC WATER LEVEL (FT): 21.56
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 1042
PURGE DEPTH (FT) n/A
TIME END PURGE: 11:02
TIME SAMPLED: 11:05
COMMENTS: 3 casings = 8.36 gals.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	39		21.58		17.42		0.16	0.64	1.44		2.78

TIME	10:42	10:45	10:48	10:51	10:59	11:02	
VOLUME PURGED (GAL)	0	1.35	2.7	4.05	7.65	9	
PURGE RATE (GPM)	0.45	0.45	0.45	0.45	0.45	0.45	
TEMPERATURE (°C)	13.14	12.92	12.84	12.81	12.88	12.85	
pH	6.94	6.88	6.83	6.84	6.84	6.84	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	590	588	588	587	588	588	
DISSOLVED OXYGEN (mg/L)	6.87	7.82	7.96	8.05	8.04	8.16	
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	n/a	n/A	n/A	
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	
ODOR	none	none	none	none	none	none	
DEPTH OF PURGE INTAKE (FT)	N/A	n/A	N/A	N/A	n/A	n/A	
DEPTH TO WATER DURING PURGE (FT)	N/A	n/A	N/A	N/A	N/A	N/A	
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1	>1	2	3+	
DEWATERED?	no	no	no	no	no	no	

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 89-2

PROJECT NUMBER: 0260216 PERSONNEL: Sch, D McC

SAMPLE DATA:

TIME SAMPLED: 11:05 COMMENTS:

DEPTH SAMPLED (FT): n/A

SAMPLING EQUIPMENT: bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-2	3	VOA	HCl	no	mL	–	Cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 9 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): n/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form

Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: O'Hara

PROJECT NUMBER: 0260021.16

PERSONNEL: Sok, DMC

STATIC WATER LEVEL (FT): N/A

MEASURING POINT DESCRIPTION: n/A

WATER LEVEL MEASUREMENT METHOD: N/A

PURGE METHOD: tap - bathroom sink

TIME START PURGE: 11:35

PURGE DEPTH (FT) n/A

TIME END PURGE: 11:48

TIME SAMPLED: 11:50

COMMENTS: No access to well. Purged and sampled from bathroom sink. Purged approx 4 gals per min. D.O. is off due to aeration of the water

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	11:35	11:38	11:41	11:44	11:48		
VOLUME PURGED (GAL)	0	12	24	36	52		
PURGE RATE (GPM)	4	4	4	4	4		
TEMPERATURE (°C)	11.58	10.26	10.15	10.41	10.50		
pH	7.04	7.02	7.02	7.03	7.03		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	563	567	564	560	557		
DISSOLVED OXYGEN (mg/L)	3.79	4.45	4.67	4.68	4.67		
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	n/A	n/A		
TURBIDITY/COLOR	clear	clear	clear	clear	clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	n/A	n/A		
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A		
NUMBER OF CASING VOLUMES REMOVED	N/A	N/A	N/A	N/A	N/A		
DEWATERED?	no	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: O'Hara

PROJECT NUMBER: 026021.16 PERSONNEL: Sch, D McC

SAMPLE DATA:

TIME SAMPLED: 11:50 COMMENTS:

DEPTH SAMPLED (FT): n/A

SAMPLING EQUIPMENT: tap

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
O'Hara	3	VOA	HCl	no	mL	-	clear	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 52 COMMENTS:

DISPOSAL METHOD: drain

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: YES NO n/A

INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES NO n/A

WELL CASING OK?: YES NO n/A

COMMENTS:

GENERAL:

WEATHER CONDITIONS: inside

TEMPERATURE (SPECIFY °C OR °F): inside

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? could not access well had to sample from the bathroom tap.

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-3
PROJECT NUMBER: 0260021.16
PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 22.37
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: bladder pump
TIME START PURGE: 1:30
PURGE DEPTH (FT) n/A
TIME END PURGE: 1:45
TIME SAMPLED: 1:50
COMMENTS: 3 casings = 5.3 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	33.50		22.37		11.13		0.16	0.64	1.44		1.8

TIME	1:30	1:33	1:36	1:39	1:42	1:45	
VOLUME PURGED (GAL)	0	1.2	2.4	3.6	4.8	6	
PURGE RATE (GPM)	0.40	0.40	0.40	0.40	0.40	0.40	
TEMPERATURE (°C)	11.99	12.02	12.09	12.08	12.07	12.10	
pH	6.67	6.59	6.53	6.51	6.50	6.49	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	1127	1115	1105	1097	1093	1088	
DISSOLVED OXYGEN (mg/L)	9.55	9.02	8.37	7.80	7.56	7.15	
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	n/A	n/A	n/A	
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	
ODOR	none	none	none	none	none	none	
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	n/A	n/A	N/A	n/A	
DEPTH TO WATER DURING PURGE (FT)	n/A	n/A	n/A	n/A	N/A	N/A	
NUMBER OF CASING VOLUMES REMOVED	<1	~1	1+	2	2+	3+	
DEWATERED?	no	no	no	no	no	no	

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-3
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

SAMPLE DATA:
TIME SAMPLED: 1:50
COMMENTS:
DEPTH SAMPLED (FT): n/A
SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-87-3	3	VOA	HCl	no	mL	–	cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 6
COMMENTS:
DISPOSAL METHOD: surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS: N/A

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): n/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston MT
WELL NUMBER: 89-6
PROJECT NUMBER: 026021.16
PERSONNEL: Sch, DMC.

STATIC WATER LEVEL (FT): 22.66
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 1:50
PURGE DEPTH (FT) 22
TIME END PURGE: 2:00
TIME SAMPLED: 2:00
COMMENTS: Parameters were recorded after 3 casing volumes were removed. 3 casing = 9 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	41.50	-	2266	=	18.84	X	0.16	0.64	1.44	=	3

TIME	2:00						
VOLUME PURGED (GAL)	9						
PURGE RATE (GPM)	n/N						
TEMPERATURE (°C)	11.20						
pH	6.85						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	975						
DISSOLVED OXYGEN (mg/L)	10.28						
eH(MV)Pt-AgCl ref.	n/A						
TURBIDITY/COLOR	clear						
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	22						
DEPTH TO WATER DURING PURGE (FT)	n/A						
NUMBER OF CASING VOLUMES REMOVED	3						
DEWATERED?	no						

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 89-6

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, DMcC

SAMPLE DATA:

TIME SAMPLED: 2:00 COMMENTS:

DEPTH SAMPLED (FT): ~22

SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-6	3	VOA	HCl	no	mL	–	Clr	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 9 COMMENTS:

DISPOSAL METHOD: surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/a

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: YES NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): n/a

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-88-10
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 21.77
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 224
PURGE DEPTH (FT) n/A
TIME END PURGE: 233
TIME SAMPLED: 235
COMMENTS: 3 casings = 4.5 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	31.00	-	21.77	=	9.3	X	0.16	0.64	1.44	=	1.5

TIME	224	227	230	233			
VOLUME PURGED (GAL)	0	1.68	3.36	5			
PURGE RATE (GPM)	0.56	0.56	0.56	0.56			
TEMPERATURE (°C)	12.23	12.08	12.03	12.03			
pH	6.67	6.59	6.59	6.58			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	870	866	867	871			
DISSOLVED OXYGEN (mg/L)	0.66	0.40	0.33	0.31			
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A			
TURBIDITY/COLOR	Clear	clear	Clear	Clear			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	n/A	N/A			
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	n/A	N/A			
NUMBER OF CASING VOLUMES REMOVED	<1	1	2	3+			
DEWATERED?	no	no	no	no			

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: L-88-10

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, DMC

SAMPLE DATA:

TIME SAMPLED: 2:35 COMMENTS:

DEPTH SAMPLED (FT): n/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-88-10	3	VOA	HCl	no	mL	-	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 5 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form

Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: L-88-13

PROJECT NUMBER: 0260216

PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 2320

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 2:46

PURGE DEPTH (FT) n/A

TIME END PURGE: 3:01

TIME SAMPLED: 3:05

COMMENTS: 3 casing = 6.3 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6		CASING VOLUME (GAL)
	36.30	-	23.20	=	13.1	X	0.16	0.64	1.44	=	2.1

TIME	2:46	2:49	2:51	254	301		
VOLUME PURGED (GAL)	0	1.41	2.35	3.76	7.05		
PURGE RATE (GPM)	0.47	0.47	0.47	0.47	0.47		
TEMPERATURE (°C)	11.91	11.50	11.49	11.47	11.52		
pH	6.80	6.71	6.69	6.76	6.69		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	803	797	788	797	789		
DISSOLVED OXYGEN (mg/L)	2.06	0.49	0.39	0.25	0.12		
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A	n/A		
TURBIDITY/COLOR	clear	clear	clear	clear	clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	N/A	N/A	N/A	N/A		
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1	1+	3+		
DEWATERED?	non	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: L-88-13

PROJECT NUMBER: 0260 21.16 PERSONNEL: Sck, DMC

SAMPLE DATA:

TIME SAMPLED: 3:05 COMMENTS:

DEPTH SAMPLED (FT): n/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-88-13	3	VOA	HCl	no	mL	-	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 7 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): n/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Parisi
PROJECT NUMBER: 026021.16
PERSONNEL: sck

STATIC WATER LEVEL (FT): N/A
MEASURING POINT DESCRIPTION: N/A
WATER LEVEL MEASUREMENT METHOD: N/A
PURGE METHOD: tap ~ kitchen
TIME START PURGE: 319
PURGE DEPTH (FT) n/A
TIME END PURGE: 330
TIME SAMPLED: 330

well is ≈ 30feet deep

COMMENTS: Well head is under jaccuzzi. Can not access well. Sample and purge took place at the kitchen sink. purge rate was 1 gallon per min

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	319	321	324	327	330		
VOLUME PURGED (GAL)	0	2	5	8	11		
PURGE RATE (GPM)	1	1	1	1	1		
TEMPERATURE (°C)	20.01	14.69	13.90	13.91	1390		
pH	7.07	7.10	7.03	7.02	7.02		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	591	615	610	609	608		
DISSOLVED OXYGEN (mg/L)	8.25	9.12	8.86	8.63	8.55		
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	n/A	n/A		
TURBIDITY/COLOR	clear	clear	clear	clear	Clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	N/A	N/A		
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	N/A	N/A		
NUMBER OF CASING VOLUMES REMOVED	N/A	N/A	N/A	N/A	N/A		
DEWATERED?	No	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: Parisi

PROJECT NUMBER: 026021.16 PERSONNEL: sck

SAMPLE DATA:

TIME SAMPLED: 330 COMMENTS:

DEPTH SAMPLED (FT): n/A

SAMPLING EQUIPMENT: tap

SAMPLE NO.	NO. OF CONTAIN-ERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
Parisi	3	VOA	HCl	no	mL	—	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 11 COMMENTS:

DISPOSAL METHOD: drain

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: YES NO N/A

INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES NO N/A

WELL CASING OK?: YES NO N/A

COMMENTS:

GENERAL:

WEATHER CONDITIONS: inside

TEMPERATURE (SPECIFY °C OR °F): inside

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? None

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, Mt
WELL NUMBER: L-87-2
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 23.92
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 529
PURGE DEPTH (FT) N/A
TIME END PURGE: 538
TIME SAMPLED: 545
COMMENTS: 3 casings = 4.4 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	33.15		23.92		9.23		0.16	0.64	1.44		1.5

TIME	5:29	5:32	5:35	5:38			
VOLUME PURGED (GAL)	0	1.68	3.36	5			
PURGE RATE (GPM)	0.56	0.56	0.56	0.56			
TEMPERATURE (°C)	12.96	12.63	12.73	1267			
pH	6.84	6.67	6.81	6.84			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	866	868	872	873			
DISSOLVED OXYGEN (mg/L)	0.79	0.62	0.77	0.77			
eH(MV)Pt-AgCl ref.	n/A	n/A	N/A	N/A			
TURBIDITY/COLOR	Clear	Clear	Clear	Clear			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	N/A	N/A	N/A	N/A			
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	NA			
NUMBER OF CASING VOLUMES REMOVED	<1	1	2	3+			
DEWATERED?	no	no	no	no			

Groundwater Purge and Sample Form Date: 6/26/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, Mt
WELL NUMBER: L-87-2
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMC.

SAMPLE DATA:
TIME SAMPLED: 5:45
COMMENTS:
DEPTH SAMPLED (FT): n/A
SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-87-2	3	VOA	HCl	no	mL	-	CL	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 5
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):
WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO
INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO
WELL CASING OK?: [✓ YES] NO
COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): n/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? None

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

* Do not use. Did not mean to sample twice!
Errors w/ calculations and data analysis

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-2
PROJECT NUMBER: 026021.16
PERSONNEL: Sck, DMC

STATIC WATER LEVEL (FT): ~~23.23~~ incorrect
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 3:58
PURGE DEPTH (FT) N/A
TIME END PURGE: 4:09
TIME SAMPLED: 4:10
COMMENTS: 3casings = 4.8

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT) incorrect		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	33.15	-	~~23.23~~	=	9.92	X	0.16	0.64	1.44	=	1.6

TIME	358	401	403	406	409		
VOLUME PURGED (GAL)	0	1.35	2.25	3.6	5		
PURGE RATE (GPM)	0.45	0.45	0.45	0.46	0.46		
TEMPERATURE (°C)	12.57	12.52	12.63	12.50	12.59		
pH	6.37	6.36	6.32	6.34	6.34		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	1052	1050	1050	1050	1051		
DISSOLVED OXYGEN (mg/L)	4.44	3.52	0.68	0.48	0.63		
eH(MV)Pt-AgCl ref.	n/A	n/A	n/A	N/A	N/A		
TURBIDITY/COLOR	clear	clear	Clear	Clear	Clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	N/A	N/A	N/A	N/A		
DEPTH TO WATER DURING PURGE (FT)	n/A	N/A	N/A	N/A	N/A		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1+	2	3+		
DEWATERED?	no	no	no	no	no		

"Do not use!

Groundwater Purge and Sample Form Date: 6/27/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-2
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMC.

SAMPLE DATA:
TIME SAMPLED: 410
COMMENTS:
DEPTH SAMPLED (FT): N/A
SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-87-2	3	VOA	HCl	no	mL	-	Cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 5
COMMENTS:
DISPOSAL METHOD: surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: YES NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 11 and 11d
PROJECT NUMBER: 026D21.16
PERSONNEL: Sek, DMC

STATIC WATER LEVEL (FT): 23.24
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 935
PURGE DEPTH (FT) ~23
TIME END PURGE: 9:45
TIME SAMPLED: 945
3casing = 2.7 gals
COMMENTS: Parameters were recorded after 3 casing volumes were removed. A duplicate sample was taken

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	28.85		23.24		5.61		0.16	0.64	1.44		6.90

TIME	9:45						
VOLUME PURGED (GAL)	3						
PURGE RATE (GPM)	N/A						
TEMPERATURE (°C)	11.79						
pH	7.31						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	752						
DISSOLVED OXYGEN (mg/L)	10.37						
eH(MV)Pt-AgCl ref.	N/A						
TURBIDITY/COLOR	Clear						
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	23						
DEPTH TO WATER DURING PURGE (FT)	N/A						
NUMBER OF CASING VOLUMES REMOVED	3+						
DEWATERED?	no						

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 11 and 11d
PROJECT NUMBER: 0260021.16
PERSONNEL: sck, DMG

SAMPLE DATA:
TIME SAMPLED: 9:45
COMMENTS:
DEPTH SAMPLED (FT): ~23
SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
11	3	VOA	HCl	no	mL	–	Cl	yes	624	
11d	3	VOC	HCl	no	mL	–	Cl	yes	624	
extra water for matrix spike and matrix										
spike duplicate was sent										

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 3
COMMENTS:
DISPOSAL METHOD: surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): n/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: LS-11

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 4.73

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 9:01

PURGE DEPTH (FT) n/A

TIME END PURGE: 9:13

TIME SAMPLED: 9:15

COMMENTS: 3 casing = 6 gals

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	17	-	4.73	=	12.27	X	0.16	0.64	1.44	=	2

TIME	9:01	9:04	9:07	9:10	9:13		
VOLUME PURGED (GAL)	0	1.5	3	4.5	6		
PURGE RATE (GPM)	0.5	0.5	0.5	0.5	0.5		
TEMPERATURE (°C)	11.21	11.29	11.35	11.32	11.24		
pH	6.84	6.98	7.05	7.05	7.06		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	460	834	837	841	848		
DISSOLVED OXYGEN (mg/L)	1.37	0.87	0	-0.30	-0.42		
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A	N/A		
TURBIDITY/COLOR	Clear	Clear	clear	Clear	Clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	NA	Na		
DEPTH TO WATER DURING PURGE (FT)	N/A	n/A	N/A	NA	NA		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1+	2+	3		
DEWATERED?	no	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: LS-11
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMC

SAMPLE DATA:
TIME SAMPLED: 9:15
COMMENTS:
DEPTH SAMPLED (FT): N/A
SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
LS-11	3	VOA	HCl	no	mL	-	cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 6
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

1 of 2

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: Depuy

PROJECT NUMBER: 026021.16

PERSONNEL: SCh DMC

STATIC WATER LEVEL (FT): N/A

MEASURING POINT DESCRIPTION: N/A

WATER LEVEL MEASUREMENT METHOD: N/A

PURGE METHOD: Bailer

TIME START PURGE: 11:00

PURGE DEPTH (FT) N/A

TIME END PURGE: 11:35

TIME SAMPLED: 11:35

COMMENTS: No SWL was record due to the well not having a survey point or ~~elev~~ recorded elevation.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	[✓ 4]	6		
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	–	–	–	–	–	–	–
VOLUME PURGED (GAL)	2	4	6	8	10	12	14
PURGE RATE (GPM)	N/A	N/A	N/A	NA	NA	NA	NA
TEMPERATURE (°C)	12.11	11.86	11.56	11.68	11.66	1155	11.74
pH	8.11	8.13	8.05	7.92	7.80	762	756
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	426	432	442	461	485	524	547
DISSOLVED OXYGEN (mg/L)	3.49	3.27	3.41	2.75	4.81	3.23	2.98
eH(MV)Pt-AgCl ref.	na	nA	N/A	N/A	N/A	NA	NA
TURBIDITY/COLOR	Clear	clear	Clear	clear	Clear	Clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	N/A	n/A	N/A	N/A	na	na	NA
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	NA	na	na	NA
NUMBER OF CASING VOLUMES REMOVED	–	–	–	–	–	–	–
DEWATERED?	no	no	no	no	no	no	no

F-43.1 (5-89)

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Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Depuy
PROJECT NUMBER: 0260021.16
PERSONNEL: SCK, DMC

SAMPLE DATA:
TIME SAMPLED: 1135
COMMENTS:
DEPTH SAMPLED (FT): N/A
SAMPLING EQUIPMENT: Bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
Depuy	3	VOA	HCl	no	mL	-	cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 24
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): NA

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

2 of 2

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: Depuy conte

PROJECT NUMBER: 026021.16

PERSONNEL: SCK; DMC

STATIC WATER LEVEL (FT): N/A

MEASURING POINT DESCRIPTION: N/A

WATER LEVEL MEASUREMENT METHOD: N/A

PURGE METHOD: Bailer

TIME START PURGE: 1100

PURGE DEPTH (FT) N/A

TIME END PURGE: 1135

TIME SAMPLED: 1135

COMMENTS: Orange color may be due to iron casing.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
		-		=		X	0.16	0.64	1.44	=	

TIME	–	–	–	–			
VOLUME PURGED (GAL)	16	20	22	24			
PURGE RATE (GPM)	NA	NA	N/A	NA			
TEMPERATURE (°C)	11.53	11.63	11.57	11.53			
pH	7.49	7.46	7.42	7.40			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	581	596	635	649			
DISSOLVED OXYGEN (mg/L)	3.28	2.91	3.86	3.31			
eH(MV)Pt-AgCl ref.	N/A	n/A	N/A	N/A			
TURBIDITY/COLOR	orange	orange	orange	orange			
ODOR	none	none	none	none			
DEPTH OF PURGE INTAKE (FT)	na	na	na	na			
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na			
NUMBER OF CASING VOLUMES REMOVED	–	–	–	–			
DEWATERED?	no	no	no	no			

Groundwater Purge and Sample Form Date: 6/30 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston WELL NUMBER: Depy

PROJECT NUMBER: PERSONNEL:

SAMPLE DATA: See page 1 of 1
TIME SAMPLED: COMMENTS:
DEPTH SAMPLED (FT):
SAMPLING EQUIPMENT:

SAMPLE NO.	NO. OF CONTAIN-ERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): COMMENTS:
DISPOSAL METHOD:
DRUM DESIGNATION(S)/VOLUME PER (GAL):

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: YES NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES NO

WELL CASING OK?: YES NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS:
TEMPERATURE (SPECIFY °C OR °F):
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING?

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: L-87-8

PROJECT NUMBER: 026021.16

PERSONNEL: Sek, DMC

STATIC WATER LEVEL (FT): 22.82

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 1156

PURGE DEPTH (FT) N/A

TIME END PURGE: 1159

TIME SAMPLED: 1210

COMMENTS: Significant product in water. 3 casing =4.6g

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	32.40		22.82		9.58		0.16	0.64	1.44		1.5

TIME	11:56	11:59	12.02	12:05			
VOLUME PURGED (GAL)	0	1.69	3.36	5			
PURGE RATE (GPM)	0.56	0.56	0.56	0.56			
TEMPERATURE (°C)	11.20	11.29	11.14	11.00			
pH	7.01	6.98	7.01	7.08			
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	697	646	693	674			
DISSOLVED OXYGEN (mg/L)	2.27	6.49	2.71	5.12			
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A			
TURBIDITY/COLOR	clear/ dark globules	"	"	"			
ODOR	yes	yes	yes	yes			
DEPTH OF PURGE INTAKE (FT)	N/A	NA	N/A	NA			
DEPTH TO WATER DURING PURGE (FT)	NA	NA	N/A	N/A			
NUMBER OF CASING VOLUMES REMOVED	<1	1	2	3			
DEWATERED?	no	no	no	no			

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: L-87-8
PROJECT NUMBER: 026021.16
PERSONNEL: Sck, DMC

SAMPLE DATA:
TIME SAMPLED: 1210
COMMENTS:
DEPTH SAMPLED (FT): NA
SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
L-87-8	3	VOA	HCl	NO	mL	—	Clear dark [illegible]	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 5
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL):

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 11 and 11d
PROJECT NUMBER: 026D21.16
PERSONNEL: Sck, DMC.

STATIC WATER LEVEL (FT): 23.24
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape.
PURGE METHOD: Bailer
TIME START PURGE: 935
PURGE DEPTH (FT) ~23
TIME END PURGE: 9:45
TIME SAMPLED: 945

3 casing = 2.7 gals

COMMENTS: Parameters were recorded after 3 casing volumes were removed. A duplicate sample was taken

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	28.85		23.24		5.61		0.16	0.64	1.44		0.90

TIME	9:45						
VOLUME PURGED (GAL)	3						
PURGE RATE (GPM)	N/A						
TEMPERATURE (°C)	11.79						
pH	7.31						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	752						
DISSOLVED OXYGEN (mg/L)	10.37						
eH(MV)Pt-AgCl ref.	N/A						
TURBIDITY/COLOR	Clear						
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	23						
DEPTH TO WATER DURING PURGE (FT)	N/A						
NUMBER OF CASING VOLUMES REMOVED	3+						
DEWATERED?	no						

Groundwater Purge and Sample Form

Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, Mt
WELL NUMBER: 11 and 11d
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMC

SAMPLE DATA:
TIME SAMPLED: 9:45
COMMENTS:
DEPTH SAMPLED (FT): ~23
SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAIN-ERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
11	3	VOA	HCl	no	mL	–	Cl	yes	624	
11d	3	VOC	HCl	no	mL	–	Cl	yes	624	
extra water for matrix spike and matrix										
spike duplicate was sent										

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 3
COMMENTS:
DISPOSAL METHOD: surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): n/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, Mt
WELL NUMBER: LS-11
PROJECT NUMBER: 026021.16
PERSONNEL: Scl, DMC

STATIC WATER LEVEL (FT): 4.73
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 9:01
PURGE DEPTH (FT) n/A
TIME END PURGE: 9:13
TIME SAMPLED: 9:15
COMMENTS: 3 casing = 6 gals

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	17	-	4.73	=	12.27	X	0.16	0.64	1.44	=	2

TIME	9:01	9:04	9:07	9:10	9:13		
VOLUME PURGED (GAL)	0	1.5	3	4.5	6		
PURGE RATE (GPM)	0.5	0.5	0.5	0.5	0.5		
TEMPERATURE (°C)	11.21	11.29	11.35	11.32	11.24		
pH	6.84	6.98	7.05	7.05	7.06		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	460	834	837	841	848		
DISSOLVED OXYGEN (mg/L)	1.37	0.87	0	-0.30	-0.42		
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A	N/A		
TURBIDITY/COLOR	Clear	Clear	clear	Clear	Clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	NA	Na		
DEPTH TO WATER DURING PURGE (FT)	N/A	n/A	N/A	NA	NA		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1+	2+	3		
DEWATERED?	no	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: LS-11

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, DMC

SAMPLE DATA:

TIME SAMPLED: 9:15 COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
LS-11	3	VOA	HCl	no	mL	–	CL	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 6 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

1 of 2

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Depuy
PROJECT NUMBER: 026021.16
PERSONNEL: 3ck DMC

STATIC WATER LEVEL (FT): N/A
MEASURING POINT DESCRIPTION: N/A
WATER LEVEL MEASUREMENT METHOD: N/A
PURGE METHOD: Bailer
TIME START PURGE: 11:00
PURGE DEPTH (FT) N/A
TIME END PURGE: 11:35
TIME SAMPLED: 11:35
COMMENTS: No SWL was record due to the well not having a survey point or ~~elev~~ recorded elevation.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	[✓ 4]	6		
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	—	—	—	—	—	—	—
VOLUME PURGED (GAL)	2	4	6	8	10	12	14
PURGE RATE (GPM)	N/A	N/A	N/A	NA	NA	NA	NA
TEMPERATURE (°C)	12.11	11.86	11.56	11.68	11.66	1155	11.74
pH	8.11	8.13	8.05	7.92	7.80	762	756
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	426	432	442	461	485	524	547
DISSOLVED OXYGEN (mg/L)	3.49	3.27	3.41	2.75	4.81	3.23	2.98
eH(MV)Pt-AgCl ref.	na	nA	N/A	N/A	N/A	NA	NA
TURBIDITY/COLOR	Clear	clear	clear	clear	clear	clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	N/A	n/A	N/A	N/A	na	na	nA
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	NA	na	na	NA
NUMBER OF CASING VOLUMES REMOVED	—	—	—	—	—	—	—
DEWATERED?	no	no	no	no	no	no	no

F-43.1 (5-89)

(ISGO.I) Page 1 of 2

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Depuy

PROJECT NUMBER: 0260021.16
PERSONNEL: SCK, DMC

SAMPLE DATA:
TIME SAMPLED: 1135
COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
Depuy	3	VOA	HCl	no	mL	–	cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 24
COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): NA

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

F-43.2 (5-89)

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Groundwater Purge and Sample Form

Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: Depuy conti

PROJECT NUMBER: 026021.16

PERSONNEL: Sck, DMC

STATIC WATER LEVEL (FT): N/A

MEASURING POINT DESCRIPTION: N/A

WATER LEVEL MEASUREMENT METHOD: N/A

PURGE METHOD: Bailer

TIME START PURGE: 1100

PURGE DEPTH (FT) N/A

TIME END PURGE: 1135

TIME SAMPLED: 1135

COMMENTS: Orange color may be due to iron casing.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
							0.16	0.64	1.44		

TIME	—	—	—	—				
VOLUME PURGED (GAL)	16	20	22	24				
PURGE RATE (GPM)	NA	NA	N/A	NA				
TEMPERATURE (°C)	11.53	11.63	11.57	11.53				
pH	7.49	7.46	7.42	7.40				
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	581	596	635	649				
DISSOLVED OXYGEN (mg/L)	3.28	2.91	3.86	3.31				
eH(MV)Pt-AgCl ref.	n/A	n/A	N/A	N/A				
TURBIDITY/COLOR	orange	orange	orange	orange				
ODOR	none	none	none	none				
DEPTH OF PURGE INTAKE (FT)	na	na	na	na				
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na				
NUMBER OF CASING VOLUMES REMOVED	—	—	—	—				
DEWATERED?	no	no	no	no				

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 11 and 11d
PROJECT NUMBER: 0260021.16
PERSONNEL: Sck, DMC

SAMPLE DATA:
TIME SAMPLED: 9:45
COMMENTS:
DEPTH SAMPLED (FT): ~23
SAMPLING EQUIPMENT: bailer

SAMPLE NO.	NO. OF CONTAIN-ERS	CON-TAINER TYPE	PRESER-VATIVE	FIELD FILTRA-TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS-TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
11	3	VOA	HCl	no	mL	–	Cl	yes	624	
11d	3	VOC	HCl	no	mL	–	Cl	yes	624	

extra water for matrix spike and matrix spike duplicate was sent.

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 3
COMMENTS:
DISPOSAL METHOD: surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: Clear
TEMPERATURE (SPECIFY °C OR °F): n/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form

Date: 6/30/03

Kennedy/Jenks Consultants

PROJECT NAME: Livingston, MT

WELL NUMBER: LS-11

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 4.73

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 9:01

PURGE DEPTH (FT) n/A

TIME END PURGE: 9:13

TIME SAMPLED: 9:15

COMMENTS: 3 casing = 6 gals

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	17	-	4.73	=	12.27	X	0.16	0.64	1.44	=	2

TIME	9:01	9:04	9:07	9:10	9:13		
VOLUME PURGED (GAL)	0	1.5	3	4.5	6		
PURGE RATE (GPM)	0.5	0.5	0.5	0.5	0.5		
TEMPERATURE (°C)	11.21	11.29	11.35	11.32	11.24		
pH	6.84	6.98	7.05	7.05	7.06		
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	460	834	837	841	848		
DISSOLVED OXYGEN (mg/L)	1.37	0.87	0	-0.30	-0.42		
eH(MV)Pt-AgCl ref.	n/A	N/A	N/A	N/A	N/A		
TURBIDITY/COLOR	Clear	Clear	clear	Clear	Clear		
ODOR	none	none	none	none	none		
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	NA	N/a		
DEPTH TO WATER DURING PURGE (FT)	N/A	n/A	N/A	NA	NA		
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1+	2+	3		
DEWATERED?	no	no	no	no	no		

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: LS-11

PROJECT NUMBER: 026021.16 PERSONNEL: SCK, DMC

SAMPLE DATA:

TIME SAMPLED: 9:15 COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
LS-11	3	VOA	HCl	no	mL	-	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 6 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Depuy
PROJECT NUMBER: 026021.16
PERSONNEL: 3ck DMC

STATIC WATER LEVEL (FT): N/A
MEASURING POINT DESCRIPTION: N/A
WATER LEVEL MEASUREMENT METHOD: N/A
PURGE METHOD: Bailer
TIME START PURGE: 11:00
PURGE DEPTH (FT) N/A
TIME END PURGE: 11:35
TIME SAMPLED: 11:35

COMMENTS: No SWL was record due to the well not having a survey point or ~~elev~~ recorded elevation.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	[✓ 4]	6		
	N/A		N/A		N/A		0.16	0.64	1.44		N/A

TIME	—	—	—	—	—	—	—
VOLUME PURGED (GAL)	2	4	6	8	10	12	14
PURGE RATE (GPM)	N/A	N/A	N/A	NA	NA	NA	NA
TEMPERATURE (°C)	12.11	11.86	11.56	11.68	11.66	1155	11.74
pH	8.11	8.13	8.05	7.92	7.80	762	756
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	426	432	442	461	485	524	547
DISSOLVED OXYGEN (mg/L)	3.49	3.27	3.41	2.75	4.81	3.23	7.98
eH(MV)Pt-AgCl ref.	na	nA	N/A	N/A	N/A	NA	NA
TURBIDITY/COLOR	Clear	clear	clear	clear	Clear	Clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	n/A	n/A	N/A	N/A	na	na	NA
DEPTH TO WATER DURING PURGE (FT)	N/A	N/A	N/A	NA	na	na	NA
NUMBER OF CASING VOLUMES REMOVED	—	—	—	—	—	—	—
DEWATERED?	no	no	no	no	no	no	no

F-43.1 (5-89)

Groundwater Purge and Sample Form

Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: Depoy

PROJECT NUMBER: 0260021.16

PERSONNEL: SCK, DMC

SAMPLE DATA:

TIME SAMPLED: 1135

COMMENTS:

DEPTH SAMPLED (FT): N/A

SAMPLING EQUIPMENT: Bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
Depoy	3	VOA	HCl	no	mL	—	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 24

COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): NA

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:

Job File:

Other:

Groundwater Purge and Sample Form Date: 6/30/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: Depuy conti
PROJECT NUMBER: 026021.16
PERSONNEL: SCK ; DMC

STATIC WATER LEVEL (FT): N/A
MEASURING POINT DESCRIPTION: N/A
WATER LEVEL MEASUREMENT METHOD: N/A
PURGE METHOD: Bailer
TIME START PURGE: 1100
PURGE DEPTH (FT) N/A
TIME END PURGE: 1135
TIME SAMPLED: 1135
COMMENTS: Orange color may be due to iron casing.

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
							0.16	0.64	1.44		

TIME	—	—	—	—				
VOLUME PURGED (GAL)	16	20	22	24				
PURGE RATE (GPM)	NA	NA	N/A	NA				
TEMPERATURE (°C)	11.53	11.63	11.57	11.53				
pH	7.49	7.46	7.42	7.40				
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	581	596	635	649				
DISSOLVED OXYGEN (mg/L)	3.28	2.91	3.86	3.31				
eH(MV)Pt-AgCl ref.	N/A	N/A	N/A	N/A				
TURBIDITY/COLOR	orange	Orange	Orange	orange				
ODOR	none	none	none	none				
DEPTH OF PURGE INTAKE (FT)	na	na	na	na				
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na				
NUMBER OF CASING VOLUMES REMOVED	—	—	—	—				
DEWATERED?	no	no	no	no				

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston MT WELL NUMBER: MW-11

PROJECT NUMBER: 026021.16 PERSONNEL: Sck, DMC

SAMPLE DATA:

TIME SAMPLED: 935 COMMENTS:

DEPTH SAMPLED (FT): ~21

SAMPLING EQUIPMENT: Bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
MW-11	3	VOA	HCl	no	mL	—	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 14.5 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/a

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: Clear

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? due to possible cross contaimat
Mosquito repellant and suntan lotion was used by DMC. Ar
may have hit bailer during purging.

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston
WELL NUMBER: 89-4
PROJECT NUMBER:
PERSONNEL: Sek DMC

STATIC WATER LEVEL (FT): 19.85
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 1014
PURGE DEPTH (FT) n/a
TIME END PURGE: 1029
TIME SAMPLED: 1030
COMMENTS: 3 casing = 6.9 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN)			=	CASING VOLUME (GAL)
							2	4	6		
	34.20		19.85		14.35		0.16	0.64	1.44		2.3

TIME	10:14	1017	1020	1023	1026	1029	
VOLUME PURGED (GAL)	0	1.41	2.82	4.23	5.17	7	
PURGE RATE (GPM)	0.47	0.47	0.47	0.47	0.47	0.47	
TEMPERATURE (°C)	11.57	11.48	11.47	1144	1145	11.47	
pH	7.16	7.16	7.12	7.10	7.11	7.06	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	837	838	839	862	861	862	
DISSOLVED OXYGEN (mg/L)	6.00	6.21	6.18	6.14	6.00	5.94	
eH(MV)Pt-AgCl ref.	na	na	na	na	na	na	
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	
ODOR	none	none	none	none	none	none	
DEPTH OF PURGE INTAKE (FT)	na	na	na	na	na	na	
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na	na	na	
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1	1+	2	3	
DEWATERED?	no	no	no	no	no	no	

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 89-4

PROJECT NUMBER: 026021.16 PERSONNEL: Sck DMC

SAMPLE DATA:
TIME SAMPLED: 10:30 COMMENTS:
DEPTH SAMPLED (FT): no
SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
89-4	3	VOA	HCl	no	mL	–	cl	yes	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 7 COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): N/A

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:
WEATHER CONDITIONS: N/A
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT

WELL NUMBER: 94-2

PROJECT NUMBER: 026021.16

PERSONNEL: SCK, DMC

STATIC WATER LEVEL (FT): 4.80

MEASURING POINT DESCRIPTION: inner casing

WATER LEVEL MEASUREMENT METHOD: SWL tape

PURGE METHOD: Bladder pump

TIME START PURGE: 11:39

PURGE DEPTH (FT) n/a

TIME END PURGE: 1157

TIME SAMPLED: 1210

COMMENTS: 3 casing = 16.6 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	4	6		
	39.5	-	4.80	=	34.7	X	0.16	0.64	1.44	=	5.6

TIME	11:39	11:42	1145	11:48	11:51	1154	1157
VOLUME PURGED (GAL)	0	2.82	5.64	8.46	10.34	14.1	17
PURGE RATE (GPM)	0.94	0.94	0.94	0.94	0.94	0.94	0.94
TEMPERATURE (°C)	9.98	9.38	9.36	9.35	9.28	9.37	9.35
pH	7.54	7.32	7.26	7.23	7.21	7.21	7.21
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	496	497	497	499	524	527	528
DISSOLVED OXYGEN (mg/L)	7.52	7.32	2.35	2.35	2.36	2.33	2.31
eH(MV)Pt-AgCl ref.	na	na	na	na	na	na	na
TURBIDITY/COLOR	Clear	Clear	clear	clear	Clear	clear	Clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	na	na	na	na	na	na	na
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na	na	na	na
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1	1+	1+	2+	3+
DEWATERED?	no	no	no	no	no	no	no

Groundwater Purge and Sample Form Date: 94-2 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 94-2

PROJECT NUMBER: 026021.16 PERSONNEL: Sek, DMC

SAMPLE DATA:

TIME SAMPLED: 1210 COMMENTS:

DEPTH SAMPLED (FT): na

SAMPLING EQUIPMENT: Bladder pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
94-2	3	VOA	HCl	no	mL	—	cl	yes	QH	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 17 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/a

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: NA

TEMPERATURE (SPECIFY °C OR °F): NA

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston MT
WELL NUMBER: 94-1
PROJECT NUMBER: 026021.16
PERSONNEL: SCK, DMcC

STATIC WATER LEVEL (FT): 8.01
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 120
PURGE DEPTH (FT) n/a
TIME END PURGE: 215
TIME SAMPLED: 215
COMMENTS: 3 casing = 57.6 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)		DEPTH TO WATER (FT)		WATER COLUMN (FT)		MULTIPLIER FOR CASING DIAMETER (IN)				CASING VOLUME (GAL)
							2	[✓ 4]	6		
	38	-	8.01	=	~~3~~29.99	X	0.16	0.64	1.44	=	19.2

TIME	123	127	132	142	152	202	212
VOLUME PURGED (GAL)	0	4.8	10.8	22.8	34.8	46.8	59
PURGE RATE (GPM)	1.2	1.2	1.2	1.2	1.2	1.2	1.2
TEMPERATURE (°C)	9.62	9.20	9.42	9.33	9.52	9.47	9.41
pH	7.05	6.82	6.95	7.10	7.18	7.18	7.07
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	549	542	570	567	566	570	579
DISSOLVED OXYGEN (mg/L)	2.82	2.40	2.49	2.61	2.60	2.57	2.63
eH(MV)Pt-AgCl ref.	na	na	na	na	na	na	na
TURBIDITY/COLOR	clear	clear	clear	clear	clear	Clear	clear
ODOR	none	none	none	none	none	none	none
DEPTH OF PURGE INTAKE (FT)	na	na	na	na	na	na	na
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na	na	na	na
NUMBER OF CASING VOLUMES REMOVED	<1	<1	<1	1+	1+	2+	3+
DEWATERED?	no	no	no	no	no	no	no

F-43.1 (5-89)

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: 94-1

PROJECT NUMBER: 026021.16 PERSONNEL: Jck DMC

SAMPLE DATA:

TIME SAMPLED: 215 COMMENTS:

DEPTH SAMPLED (FT): NA

SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
94-1	3	VOA	HCl	no	mL	-	cl	ys	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): 59 COMMENTS:

DISPOSAL METHOD: Surface

DRUM DESIGNATION(S)/VOLUME PER (GAL): n/a

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: [✓ YES] NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: [✓ YES] NO

WELL CASING OK?: [✓ YES] NO

COMMENTS:

GENERAL:

WEATHER CONDITIONS: N/A

TEMPERATURE (SPECIFY °C OR °F): N/A

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: 92-2
PROJECT NUMBER: 0260 21 16
PERSONNEL: Sch, DMC

STATIC WATER LEVEL (FT): 5.26
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bladder pump
TIME START PURGE: 240
PURGE DEPTH (FT) na
TIME END PURGE: 255
TIME SAMPLED: 255
COMMENTS: 3 casing = 10.4 gallons

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	27.00		5.26		21.75		0.16	0.64	1.44		3.4

TIME	240	243	246	249	252	255	
VOLUME PURGED (GAL)	0	2.19	4.38	6.57	8.76	11	
PURGE RATE (GPM)	0.73	0.73	0.73	0.73	0.73	0.73	
TEMPERATURE (°C)	9.45	8.89	8.80	8.83	8.81	8.82	
pH	6.95	6.89	6.89	6.91	6.95	6.96	
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	876	687	676	673	663	658	
DISSOLVED OXYGEN (mg/L)	1.94	1.32	1.35	1.38	1.38	1.40	
eH(MV)Pt-AgCl ref.	na	na	na	na	na	na	
TURBIDITY/COLOR	clear	clear	clear	clear	clear	clear	
ODOR	none	none	none	none	none	none	
DEPTH OF PURGE INTAKE (FT)	na	na	na	na	na	na	
DEPTH TO WATER DURING PURGE (FT)	na	na	na	na	na	na	
NUMBER OF CASING VOLUMES REMOVED	<1	<1	1+	2	2	3	
DEWATERED?	no	no	no	no	no	no	

Groundwater Purge and Sample Form Date: 7/1/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston
WELL NUMBER: 92-2
PROJECT NUMBER: 0860021.16
PERSONNEL: Sck DMC

SAMPLE DATA:
TIME SAMPLED: 255
COMMENTS:
DEPTH SAMPLED (FT): na
SAMPLING EQUIPMENT: Bladder Pump

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
92-2	3	VOA	HCl	no	mL	-	cl	ys	624	

PURGE WATER DISPOSAL NOTES:
TOTAL DISCHARGE (GAL): 11
COMMENTS:
DISPOSAL METHOD: Surface
DRUM DESIGNATION(S)/VOLUME PER (GAL): n/a

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: YES [✓ NO]

INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES [✓ NO]

WELL CASING OK?: YES [✓ NO]

COMMENTS:

GENERAL:
WEATHER CONDITIONS: N/A
TEMPERATURE (SPECIFY °C OR °F): N/A
PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? none

cc: Project Manager:
Job File:
Other:

Groundwater Purge and Sample Form Date: 7/2/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT
WELL NUMBER: MW-10
PROJECT NUMBER: 026021.16
PERSONNEL: Sck, DMC

STATIC WATER LEVEL (FT): 5.78
MEASURING POINT DESCRIPTION: inner casing
WATER LEVEL MEASUREMENT METHOD: SWL tape
PURGE METHOD: Bailer
TIME START PURGE: 11:30
PURGE DEPTH (FT)
TIME END PURGE: 1210
TIME SAMPLED: 1210

COMMENTS: Well is abstructed (possible silt) about 7-8 feet down. Able to fill bailer w/ 2/3 water. The well seems to be recharging. Parameters were recorde

WELL VOLUME CALCULATION (FILL IN BEFORE PURGING)	abstructed TOTAL DEPTH (FT)	-	DEPTH TO WATER (FT)	=	WATER COLUMN (FT)	X	MULTIPLIER FOR CASING DIAMETER (IN) 2	4	6	=	CASING VOLUME (GAL)
	7.5		5.78		1.72		0.16	0.64	1.44		0.28

TIME	12.10						
VOLUME PURGED (GAL)	3						
PURGE RATE (GPM)	—						
TEMPERATURE (°C)	12.49						
pH	6.65						
SPECIFIC CONDUCTIVITY (micromhos/cm) (uncorrected)	743						
DISSOLVED OXYGEN (mg/L)	6.77						
eH(MV)Pt-AgCl ref.	na						
TURBIDITY/COLOR	Clear						
ODOR	none						
DEPTH OF PURGE INTAKE (FT)	na						
DEPTH TO WATER DURING PURGE (FT)	na						
NUMBER OF CASING VOLUMES REMOVED	3						
DEWATERED?	no						

Groundwater Purge and Sample Form Date: 112/03 **Kennedy/Jenks Consultants**

PROJECT NAME: Livingston, MT WELL NUMBER: MW-10

PROJECT NUMBER: ______ PERSONNEL: Sck, DMC

SAMPLE DATA:

TIME SAMPLED: 1210 COMMENTS: ______

DEPTH SAMPLED (FT): —

SAMPLING EQUIPMENT: Bailer

SAMPLE NO.	NO. OF CONTAINERS	CONTAINER TYPE	PRESERVATIVE	FIELD FILTRATION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
MW-10	3	VOA	HCl	no	mL	–	cl	yes	624	

PURGE WATER DISPOSAL NOTES:

TOTAL DISCHARGE (GAL): ______ COMMENTS: ______

DISPOSAL METHOD: ______

DRUM DESIGNATION(S)/VOLUME PER (GAL): ______

WELL HEAD CONDITIONS CHECKLIST (CIRCLE YES OR NO - IF NO, ADD COMMENTS):

WELL SECURITY DEVICES OK (BOLLARDS, CHRISTY LID, CASING LID AND LOCK)?: YES NO

INSIDE OF WELL HEAD AND OUTER CASING DRY?: YES NO

WELL CASING OK?: YES NO

COMMENTS: ______

GENERAL:

WEATHER CONDITIONS: ______

TEMPERATURE (SPECIFY °C OR °F): ______

PROBLEMS ENCOUNTERED DURING PURGING OR SAMPLING? Conti--- after 3 casing volumes were removed. Was told the well is not this 7-8 shallow. Would not use data to show flow path

cc: Project Manager: ______
Job File: ______
Other: ______

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 [✓ 6] 7 ,2003 **Well Number:** 94-1

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1535

==

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
38		10.43		27.57		0.16	0.64	1.44		4.41 X3=13.28

==

Purge and Sample Method: [✓ Bladder Pump] / Bailer

==

Parameter Readings using YSI Multiparameter

Time	1426	1454	1511	1532			
Temperature °C	11.05	10.82	10.76	10.75			
pH	8.00	7.35	7.19	7.66			
Specific Conductivity mS	0.349	0.346	0.347	0.347			
Dissolved Oxygen %	43.3	18.7	28.8	27.8			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate:__________ Volume Purged:__________

Vol. Purged (gal.)	4 initial	~4.5	~4.5	~4.5

Samples Collected:
Sample ID: 94-1

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	[✓ 524.2]	3	Preserved, HCl	40ml

Duplicates Associated with Sample: **YES** **NO**
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: **YES** **NO**
Matrix Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: **YES** **NO**
Matrix Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 [✓ 6] 7 ,2003 **Well Number:** 94-2

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 0950

==

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume	
						2	4	6			
39.5		8.54		30.96		0.16	0.64	1.44		4.95	14.8

==

Purge and Sample Method: [✓ Bladder Pump] / Bailer

==

Parameter Readings using YSI Multiparameter

8 gal

Time	0924	0927	0930	0933	0936	0941	0943
Temperature	9.65	9.87	10.04	[illegible]	10 20	9.6[illegible]	9.83
pH	6.35	[illegible]	[illegible]	[illegible]	712	7.25	7.3[illegible]
Specific Conductivity	337	33[illegible]	[illegible]	[illegible]	337	[illegible]	[illegible]
Dissolved Oxygen	29.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Turbidity/Color	Clear						
Odor	None						

Purge Rate: 1 gpm **Volume Purged:** 15 gallons

*25 mL purge

Samples Collected:
Sample ID: 94-2

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Duplicates Associated with Sample: **YES** [✓ **NO**]
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: **YES** [✓ **NO**]
Matrix Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: **YES** [✓ **NO**]
Matrix Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 [✓ 6] 7 ,2003 **Well Number:** 90-3

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, [✓ GG]

Sample Time: 1350

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
19.85		16.43		9.42		0.16	0.64	1.44		1.52

x 3 = 4.5 gal

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	1321	1331	1338	1345	1348		
Temperature °C	10.07	10.05	11.38	11.30	11.33		
pH	7.37	7.27	7.20	7.17	7.17		
Specific Conductivity mS	0.639	0.653	0.657	0.655	0.659		
Dissolved Oxygen %	36.2	22.5	8.2	4.6	4.5		
Turbidity/Color	Clear/None	Clear/None	Clear/None	Clear/None	Clear/None		
Odor	None	None	None	None	None		

Purge Rate: Volume Purged: ~4.5

Vol. Purged	1 gal,	1 gal.	1 gal.	1 gal	0.5 gal

Samples Collected:
Sample ID: 90-3

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: [✓ YES] NO
Duplicate Sample ID 90-3d

11/6/03 @ 1351

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: ~~YES~~ [✓ NO] No
Matrix Sample ID ~~90-3ms~~

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: ~~YES~~ [✓ NO] NO
Matrix Duplicate Sample ID ~~90-3msd~~

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Additional Comments:

Brown rootlets coming up with purge water.

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7] 2003 **Well Number:** 92-1

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 0810

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
32.00		23.25		8.75		0.16	0.64	1.44		1.4

4.2

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	0742	0752	0800	0805			
Temperature °C	11.29	11.61	11.63	11.64			
pH	7.31	7.16	7.35	7.24			
Specific Conductivity mS	0.684	0.672	0.671	0.670			
Dissolved Oxygen %	65.7	58.1	58.0	58.3			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate: ______ Volume Purged: ~4.4

Purge Vol. (gals.)	0 initial	~1.6	~1.4	~1.2

Samples Collected:
Sample ID: 92-1

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID__________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID__________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID__________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7],2003 **Well Number:** L-87-5

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 0905

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
29.00		23.97		5.03		0.16	0.64	1.44		0.80 x 3 = 2.4

Purge and Sample Method: Bladder Pump / [✓ Bailer]

Parameter Readings using YSI Multiparameter

Time	0840	0845	0851	0856			
Temperature	9.42	4.35	9.24	9.22			
pH	7.53	7.54	7.61	7.52			
Specific Conductivity	0.303	0.578	0.575	0.574			
Dissolved Oxygen	49.8	51.1	51.6	51.5			
Turbidity/Color	clear/None	cloudy/gray-brn	Same	Same			
Odor	None	None	None	None			

Purge Rate: **Volume Purged:** ~4

Purge Vol. 1 gal ~1.0 ~1.0 ~1.0

Samples Collected:
Sample ID: L-87-5

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7] 2003 **Well Number:** 89-3

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1026

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						[✓ 2]	4	6		
34.00		18.32		15.68		0.16	0.64	1.44		2.51

x3 = 7.53

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	0953	0958	1007	1017	1026		
Temperature	11.00	11.03	11.01	11.01	11.01		
pH	7.86	7.46	7.34	7.34	7.32		
Specific Conductivity	0.548	0.548	0.548	0.549	0.549		
Dissolved Oxygen	79.0	79.5	61.0	60.6	62.9		
Turbidity/Color	clear/None	clear/None	clear/None	clear/None	clear/None		
Odor	None	None	None	None	None		

Purge Rate: ________ Volume Purged: ~10

Purge Vol. (gal.)	0 initial	~2.5	~2.5	~2.5	~2.5

Samples Collected:
Sample ID: 89-3

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID_________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID_________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID_________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7],2003 **Well Number:** L-87-2

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1145

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
33.15		25.19		7.96		0.16	0.64	1.44		1.27 x3 = 3.8

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	1125	1130	1135	1140			
Temperature	10.57	12.46	12.46	12.44			
pH	7.65	6.87	6.87	6.86			
Specific Conductivity	0.790	0.737	0.736	0.735			
Dissolved Oxygen	33.7	1.9	1.9	2.4			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate: **Volume Purged:** ~4

Vol. purged (gal.)	0	~1.25	~1.5	~1.25

Samples Collected:
Sample ID: L-87-2

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID____________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID____________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID____________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7],2003 **Well Number:** 89-4

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1325

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
34.20						2	4	6		
[illegible]		21.03		13.17		0.16	0.64	1.44		2.1

x 3 = 6.3.

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	1256	1304	1312 ~~1308~~	1320			
Temperature	11.61	11.67	11.67	11.64			
pH	7.92	7.36	7.27	7.21			
Specific Conductivity	0.726	0.726	0.724	0.725			
Dissolved Oxygen	58.3	44.7	44.8	44.5			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate:_______________ Volume Purged: ~6.3

Purge Vol. (gals.) 0 initial ~2.1 ~2.1 ~2.1

Samples Collected:
Sample ID: 89-4

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7] 2003 **Well Number:** L-87-8

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1420

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						[✓ 2]	4	6		
32.40		24.38		8.02		0.16	0.64	1.44		1.3 ×3 = 3.8

Purge and Sample Method: [✓ Bladder Pump] / ~~Bailer~~

Parameter Readings using YSI Multiparameter

Time	1400	1405	1409	1414			
Temperature	11.32	11.56	11.55	11.50			
pH	7.43	7.06	6.99	7.00			
Specific Conductivity	0.774	0.748	0.731	0.739			
Dissolved Oxygen	28.4	5.2	2.9	3.2			
Turbidity/Color	~~clear~~	Same	Same	Same	} purge bucket - samples clear & colorless w/ trace blk fine particulate		
Odor	Diesel Like	Same	Same	Same			

Purge Rate: ______ Volume Purged: ~3.9

Purge Vol. Ø initial ~1.5 ~1.1 ~1.3

globules of LNAPL, slightly cloudy, lt. Brown

Samples Collected:
Sample ID: L-87-8

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Duplicates Associated with Sample: **YES** [✓ **NO**]
Duplicate Sample ID____________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: **YES** [✓ **NO**]
Matrix Sample ID____________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: **YES** [✓ **NO**]
Matrix Duplicate Sample ID____________________________

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 [✓ 7],2003 **Well Number:** L-88-10

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1500

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						2	4	6		
31.00		24.04		6.96		0.16	0.64	1.44		1.11 x 3 = 3.3

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	1442	1447	1453	1458			
Temperature	10,92	11.57	11.61	11.62			
pH	7.53	7.17	7.13	7.11			
Specific Conductivity	0.673	0.719	0.721	0.721			
Dissolved Oxygen	31.7	3.6	2.8	2.6			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate:________ Volume Purged:________

Purge Vol. 0 initial ~1.1 ~1.2

Samples Collected:
Sample ID: L-88-10

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: YES [✓ NO]
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: YES [✓ NO]
Matrix Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: YES [✓ NO]
Matrix Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Additional Comments:

Groundwater Purge and Sample Form

BN Livingston,MT / Kennedy/Jenks Consultants

Date: November 4 5 6 7 ,2003 **Well Number:** 92-2

Project Name: BNSF-Livingston, Montana - Groundwater Monitoring

Project Number: 026021.16

Personnel: SCK, GG

Sample Time: 1555

Well Volume Calculation

Total Depth	-	Depth to Water	=	Water Column	x	Multiplier for Casing Diameter			=	Casing Volume
						[✓ 2]	4	6		
27.00		8.91		18.09		0.16	0.64	1.44		2.89 x3 = 8.6

Purge and Sample Method: [✓ Bladder Pump] / Bailer

Parameter Readings using YSI Multiparameter

Time	1514	1525	1536	1548			
Temperature	10.61	11.67	11.69	11.73			
pH	7.82	7.37	7.35	7.35			
Specific Conductivity	0.437	0.410	0.410	0.409			
Dissolved Oxygen	74.9	28.8	30.1	29.7			
Turbidity/Color	clear/None	clear/None	clear/None	clear/None			
Odor	None	None	None	None			

Purge Rate:________ Volume Purged: ~9

Purge Vol.	Ø initial	~3gal	~3gal	~3gal

Samples Collected:
Sample ID: 92-2

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Duplicates Associated with Sample: **YES** [✓ **NO**]
Duplicate Sample ID

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	524.2	3	Preserved, HCl	40ml

Matrix Spike Associated with Sample: [✓ **YES**] **NO**
Matrix Sample ID 92-2MS

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Matrix Spike Duplicate Associated with Sample: [✓ **YES**] **NO**
Matrix Duplicate Sample ID 92-2MSD

Analyte	EPA Method	# to Collect	Comments	Volume Filled
VOC	~~524.2~~ 8260	3	Preserved, HCl	40ml

Additional Comments:

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Forms

ENERGY LABORATORIES, INC. ∘ P.O. Box 30916 ∘ 1120 South 27th Street ∘ Billings, MT 59107-0916
800-735-4489 ∘ 406-252-6325 ∘ 406-252-6069 fax ∘ eli@energylab.com

ANALYTICAL SUMMARY REPORT

July 15, 2003

Sarah Kraja
Kennedy Jenks Consultants-Federal Way
32001 32nd Ave South, Ste 100
Federal Way, WA 98001

Workorder No.: B03070075
Project Name: BNSF Livingston MT, 026021.16

Energy Laboratories Inc received the following 19 samples from Kennedy Jenks Consultants-Federal Way on 7/1/2003 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B03070075-001	90-3	06/26/03 11:25	07/01/03	Aqueous	624-Purgeable Organics
B03070075-002	89-9	06/26/03 12:50	07/01/03	Aqueous	Same As Above
B03070075-003	89-8	06/26/03 13:10	07/01/03	Aqueous	Same As Above
B03070075-004	89-3	06/26/03 14:15	07/01/03	Aqueous	Same As Above
B03070075-005	90-6	06/26/03 16:20	07/01/03	Aqueous	Same As Above
B03070075-006	92-1	06/26/03 16:55	07/01/03	Aqueous	Same As Above
B03070075-007	L-87-5	06/26/03 17:10	07/01/03	Aqueous	Same As Above
B03070075-008	L-87-2	06/26/03 17:45	07/01/03	Aqueous	Same As Above
B03070075-009	Rainbow	06/27/03 8:35	07/01/03	Aqueous	Same As Above
B03070075-010	MW-12	06/27/03 9:55	07/01/03	Aqueous	Same As Above
B03070075-011	89-2	06/27/03 11:05	07/01/03	Aqueous	Same As Above
B03070075-012	O'Hara	06/27/03 11:32	07/01/03	Aqueous	Same As Above
B03070075-013	L-87-3	06/27/03 13:50	07/01/03	Aqueous	Same As Above
B03070075-014	89-6	06/27/03 14:00	07/01/03	Aqueous	Same As Above
B03070075-015	L-88-10	06/27/03 14:35	07/01/03	Aqueous	Same As Above
B03070075-016	L-88-13	06/27/03 15:05	07/01/03	Aqueous	Same As Above
B03070075-017	Parisi	06/27/03 15:30	07/01/03	Aqueous	Same As Above
B03070075-018	L-87-2	06/27/03 16:10	07/01/03	Aqueous	Same As Above
B03070075-019	Trip Blank	06/26/03 11:25	07/01/03	Trip Blank	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except if noted in report comments or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:______________________

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-001
Client Sample ID: 90-3

Report Date: 07/11/03
Collection Date: 06/26/03 11:25
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Bromoform	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Bromomethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Chloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/02/03 18:44 / trr
Chloroform	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Chloromethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Styrene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Tetrachloroethene	19	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. • *P.O. Box 30916* • *1120 South 27th Street* • *Billings, MT 59107-0916*
800-735-4489 • *406-252-6325* • *406-252-6069 fax* • *eli@energylab.com*

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-001
Client Sample ID: 90-3

Report Date: 07/11/03
Collection Date: 06/26/03 11:25
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Trichloroethene	0.91	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
o-Xylene	ND	ug/L		0.50		E624	07/02/03 18:44 / trr
Xylenes, Total	ND	ug/L				E624	07/02/03 18:44 / trr
Surr: 1,2-Dichloroethane-d4	86.8	%REC			71-139	E624	07/02/03 18:44 / trr
Surr: p-Bromofluorobenzene	109	%REC			80-127	E624	07/02/03 18:44 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/02/03 18:44 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-002
Client Sample ID: 89-9

Report Date: 07/11/03
Collection Date: 06/26/03 12:50
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Bromoform	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Bromomethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Chloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/02/03 19:28 / trr
Chloroform	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Chloromethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
cis-1,2-Dichloroethene	1.8	ug/L		0.50		E624	07/02/03 19:28 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Styrene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Tetrachloroethene	39	ug/L		5.0		E624	07/09/03 00:35 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/26/03 12:50
Lab ID:	B03070075-002	**Date Received:**	07/01/03
Client Sample ID:	89-9	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Trichloroethene	2.4	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
o-Xylene	ND	ug/L		0.50		E624	07/02/03 19:28 / trr
Xylenes, Total	ND	ug/L				E624	07/02/03 19:28 / trr
Xylenes, Total	ND	ug/L				E624	07/09/03 00:35 / hjc
Surr: 1,2-Dichloroethane-d4	86.0	%REC			71-139	E624	07/02/03 19:28 / trr
Surr: p-Bromofluorobenzene	114	%REC			80-127	E624	07/02/03 19:28 / trr
Surr: Toluene-d8	112	%REC			80-123	E624	07/02/03 19:28 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-003
Client Sample ID: 89-8

Report Date: 07/11/03
Collection Date: 06/26/03 13:10
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Bromoform	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Bromomethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Chloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/02/03 20:13 / trr
Chloroform	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Chloromethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Styrene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Tetrachloroethene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-003
Client Sample ID: 89-8

Report Date: 07/11/03
Collection Date: 06/26/03 13:10
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
o-Xylene	ND	ug/L		0.50		E624	07/02/03 20:13 / trr
Xylenes, Total	ND	ug/L				E624	07/02/03 20:13 / trr
Surr: 1,2-Dichloroethane-d4	90.4	%REC			71-139	E624	07/02/03 20:13 / trr
Surr: p-Bromofluorobenzene	103	%REC			80-127	E624	07/02/03 20:13 / trr
Surr: Toluene-d8	112	%REC			80-123	E624	07/02/03 20:13 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-004
Client Sample ID: 89-3

Report Date: 07/11/03
Collection Date: 06/26/03 14:15
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 12:39 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
cis-1,2-Dichloroethene	0.76	ug/L		0.50		E624	07/03/03 12:39 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Tetrachloroethene	148	ug/L		5.0		E624	07/08/03 22:55 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-004
Client Sample ID: 89-3

Report Date: 07/11/03
Collection Date: 06/26/03 14:15
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Trichloroethene	1.3	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 12:39 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 12:39 / trr
Xylenes, Total	ND	ug/L				E624	07/08/03 22:55 / hjc
Surr: 1,2-Dichloroethane-d4	85.2	%REC			71-139	E624	07/03/03 12:39 / trr
Surr: p-Bromofluorobenzene	111	%REC			80-127	E624	07/03/03 12:39 / trr
Surr: Toluene-d8	111	%REC			80-123	E624	07/03/03 12:39 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-005
Client Sample ID: 90-6

Report Date: 07/11/03
Collection Date: 06/26/03 16:20
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Bromoform	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/08/03 18:15 / hjc
Chloroform	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Styrene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Tetrachloroethene	0.57	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
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ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-005
Client Sample ID: 90-6

Report Date: 07/11/03
Collection Date: 06/26/03 16:20
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/08/03 18:15 / hjc
Xylenes, Total	ND	ug/L				E624	07/08/03 18:15 / hjc
Surr: 1,2-Dichloroethane-d4	101	%REC			71-139	E624	07/08/03 18:15 / hjc
Surr: p-Bromofluorobenzene	103	%REC			80-127	E624	07/08/03 18:15 / hjc
Surr: Toluene-d8	105	%REC			80-123	E624	07/08/03 18:15 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-006
Client Sample ID: 92-1

Report Date: 07/11/03
Collection Date: 06/26/03 16:55
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 13:59 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
cis-1,2-Dichloroethene	9.8	ug/L		0.50		E624	07/03/03 13:59 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Tetrachloroethene	82	ug/L		5.0		E624	07/09/03 02:16 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-006
Client Sample ID: 92-1

Report Date: 07/11/03
Collection Date: 06/26/03 16:55
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 13:59 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 13:59 / trr
Xylenes, Total	ND	ug/L				E624	07/09/03 02:16 / hjc
Surr: 1,2-Dichloroethane-d4	87.2	%REC			71-139	E624	07/03/03 13:59 / trr
Surr: p-Bromofluorobenzene	110	%REC			80-127	E624	07/03/03 13:59 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 13:59 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-007
Client Sample ID: L-87-5

Report Date: 07/11/03
Collection Date: 06/26/03 17:10
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 14:39 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
cis-1,2-Dichloroethene	1.7	ug/L		0.50		E624	07/03/03 14:39 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Tetrachloroethene	37	ug/L		5.0		E624	07/08/03 16:34 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-007
Client Sample ID: L-87-5

Report Date: 07/11/03
Collection Date: 06/26/03 17:10
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Trichloroethene	2.0	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 14:39 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 14:39 / trr
Xylenes, Total	ND	ug/L				E624	07/08/03 16:34 / hjc
Surr: 1,2-Dichloroethane-d4	88.0	%REC			71-139	E624	07/03/03 14:39 / trr
Surr: p-Bromofluorobenzene	103	%REC			80-127	E624	07/03/03 14:39 / trr
Surr: Toluene-d8	111	%REC			80-123	E624	07/03/03 14:39 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/26/03 17:45
Lab ID:	B03070075-008	**Date Received:**	07/01/03
Client Sample ID:	L-87-2	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Chlorobenzene	24	ug/L		5.0		E624	07/08/03 17:07 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 15:20 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
2-Chlorotoluene	55	ug/L		5.0		E624	07/08/03 17:07 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,2-Dichlorobenzene	1.5	ug/L		0.50		E624	07/03/03 15:20 / trr
1,3-Dichlorobenzene	0.54	ug/L		0.50		E624	07/03/03 15:20 / trr
1,4-Dichlorobenzene	4.0	ug/L		0.50		E624	07/03/03 15:20 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
cis-1,2-Dichloroethene	7.3	ug/L		0.50		E624	07/03/03 15:20 / trr
trans-1,2-Dichloroethene	0.60	ug/L		0.50		E624	07/03/03 15:20 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Tetrachloroethene	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.
	J - Estimated value. The analyte was present but less than the reporting limit.	

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-008
Client Sample ID: L-87-2

Report Date: 07/11/03
Collection Date: 06/26/03 17:45
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	0.35	ug/L	J	0.50		E624	07/03/03 15:20 / trr
Trichloroethene	0.42	ug/L	J	0.50		E624	07/03/03 15:20 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
Vinyl chloride	8.0	ug/L		0.50		E624	07/03/03 15:20 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 15:20 / trr
o-Xylene	1.5	ug/L		0.50		E624	07/03/03 15:20 / trr
Xylenes, Total	1.5	ug/L				E624	07/03/03 15:20 / trr
Surr: 1,2-Dichloroethane-d4	82.8	%REC			71-139	E624	07/03/03 15:20 / trr
Surr: p-Bromofluorobenzene	111	%REC			80-127	E624	07/03/03 15:20 / trr
Surr: Toluene-d8	105	%REC			80-123	E624	07/03/03 15:20 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-009
Client Sample ID: Rainbow

Report Date: 07/11/03
Collection Date: 06/27/03 08:35
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 16:00 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
cis-1,2-Dichloroethene	0.99	ug/L		0.50		E624	07/03/03 16:00 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Tetrachloroethene	8.0	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-009
Client Sample ID: Rainbow

Report Date: 07/11/03
Collection Date: 06/27/03 08:35
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Trichloroethene	1.4	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 16:00 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 16:00 / trr
Surr: 1,2-Dichloroethane-d4	91.2	%REC			71-139	E624	07/03/03 16:00 / trr
Surr: p-Bromofluorobenzene	100	%REC			80-127	E624	07/03/03 16:00 / trr
Surr: Toluene-d8	110	%REC			80-123	E624	07/03/03 16:00 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/27/03 09:55
Lab ID:	B03070075-010	**Date Received:**	07/01/03
Client Sample ID:	MW-12	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 16:41 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Tetrachloroethene	3.2	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-010
Client Sample ID: MW-12

Report Date: 07/11/03
Collection Date: 06/27/03 09:55
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 16:41 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 16:41 / trr
Surr: 1,2-Dichloroethane-d4	88.4	%REC			71-139	E624	07/03/03 16:41 / trr
Surr: p-Bromofluorobenzene	116	%REC			80-127	E624	07/03/03 16:41 / trr
Surr: Toluene-d8	106	%REC			80-123	E624	07/03/03 16:41 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-011
Client Sample ID: 89-2

Report Date: 07/11/03
Collection Date: 06/27/03 11:05
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 17:22 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Tetrachloroethene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/27/03 11:05
Lab ID:	B03070075-011	**Date Received:**	07/01/03
Client Sample ID:	89-2	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 17:22 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 17:22 / trr
Surr: 1,2-Dichloroethane-d4	90.8	%REC			71-139	E624	07/03/03 17:22 / trr
Surr: p-Bromofluorobenzene	115	%REC			80-127	E624	07/03/03 17:22 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 17:22 / trr

Report Definitions:	RL - Analyte reporting limit. QCL - Quality control limit.	MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-012
Client Sample ID: O'Hara

Report Date: 07/11/03
Collection Date: 06/27/03 11:32
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 18:03 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Tetrachloroethene	0.90	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/27/03 11:32
Lab ID:	B03070075-012	**Date Received:**	07/01/03
Client Sample ID:	O'Hara	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 18:03 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 18:03 / trr
Surr: 1,2-Dichloroethane-d4	86.4	%REC			71-139	E624	07/03/03 18:03 / trr
Surr: p-Bromofluorobenzene	110	%REC			80-127	E624	07/03/03 18:03 / trr
Surr: Toluene-d8	110	%REC			80-123	E624	07/03/03 18:03 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-013
Client Sample ID: L-87-3

Report Date: 07/11/03
Collection Date: 06/27/03 13:50
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 18:44 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
cis-1,2-Dichloroethene	5.0	ug/L		0.50		E624	07/03/03 18:44 / trr
trans-1,2-Dichloroethene	0.48	ug/L	J	0.50		E624	07/03/03 18:44 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Tetrachloroethene	35	ug/L		5.0		E624	07/08/03 23:27 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-013
Client Sample ID: L-87-3

Report Date: 07/11/03
Collection Date: 06/27/03 13:50
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Trichloroethene	3.2	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 18:44 / trr
Xylenes, Total	ND	ug/L				E624	07/08/03 23:27 / hjc
Surr: 1,2-Dichloroethane-d4	88.8	%REC			71-139	E624	07/03/03 18:44 / trr
Surr: p-Bromofluorobenzene	108	%REC			80-127	E624	07/03/03 18:44 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 18:44 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-014
Client Sample ID: 89-6

Report Date: 07/11/03
Collection Date: 06/27/03 14:00
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 19:25 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Tetrachloroethene	5.4	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-014
Client Sample ID: 89-6

Report Date: 07/11/03
Collection Date: 06/27/03 14:00
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 19:25 / trr
Surr: 1,2-Dichloroethane-d4	86.4	%REC			71-139	E624	07/03/03 19:25 / trr
Surr: p-Bromofluorobenzene	107	%REC			80-127	E624	07/03/03 19:25 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 19:25 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/27/03 14:35
Lab ID:	B03070075-015	**Date Received:**	07/01/03
Client Sample ID:	L-88-10	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chlorobenzene	1.7	ug/L		0.50		E624	07/03/03 20:07 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 20:07 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,4-Dichlorobenzene	0.46	ug/L	J	0.50		E624	07/03/03 20:07 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
cis-1,2-Dichloroethene	6.2	ug/L		0.50		E624	07/03/03 20:07 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Tetrachloroethene	19	ug/L		5.0		E624	07/09/03 00:02 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-013
Client Sample ID: L-87-3

Report Date: 07/11/03
Collection Date: 06/27/03 13:50
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Trichloroethene	3.2	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 18:44 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 18:44 / trr
Xylenes, Total	ND	ug/L				E624	07/08/03 23:27 / hjc
Surr: 1,2-Dichloroethane-d4	88.8	%REC			71-139	E624	07/03/03 18:44 / trr
Surr: p-Bromofluorobenzene	108	%REC			80-127	E624	07/03/03 18:44 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 18:44 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. • P.O. Box 30916 • 1120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-014
Client Sample ID: 89-6

Report Date: 07/11/03
Collection Date: 06/27/03 14:00
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 19:25 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Tetrachloroethene	5.4	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/27/03 14:00
Lab ID:	B03070075-014	**Date Received:**	07/01/03
Client Sample ID:	89-6	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 19:25 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 19:25 / trr
Surr: 1,2-Dichloroethane-d4	86.4	%REC			71-139	E624	07/03/03 19:25 / trr
Surr: p-Bromofluorobenzene	107	%REC			80-127	E624	07/03/03 19:25 / trr
Surr: Toluene-d8	108	%REC			80-123	E624	07/03/03 19:25 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-015
Client Sample ID: L-88-10

Report Date: 07/11/03
Collection Date: 06/27/03 14:35
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chlorobenzene	1.7	ug/L		0.50		E624	07/03/03 20:07 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 20:07 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,4-Dichlorobenzene	0.46	ug/L	J	0.50		E624	07/03/03 20:07 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
cis-1,2-Dichloroethene	6.2	ug/L		0.50		E624	07/03/03 20:07 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Tetrachloroethene	19	ug/L		5.0		E624	07/09/03 00:02 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-015
Client Sample ID: L-88-10

Report Date: 07/11/03
Collection Date: 06/27/03 14:35
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Trichloroethene	5.1	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 20:07 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 20:07 / trr
Xylenes, Total	ND	ug/L				E624	07/09/03 00:02 / hjc
Surr: 1,2-Dichloroethane-d4	87.2	%REC			71-139	E624	07/03/03 20:07 / trr
Surr: p-Bromofluorobenzene	113	%REC			80-127	E624	07/03/03 20:07 / trr
Surr: Toluene-d8	112	%REC			80-123	E624	07/03/03 20:07 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-016
Client Sample ID: L-88-13

Report Date: 07/11/03
Collection Date: 06/27/03 15:05
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Bromoform	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Bromomethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Chloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/03/03 20:49 / trr
Chloroform	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Chloromethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
cis-1,2-Dichloroethene	0.70	ug/L		0.50		E624	07/03/03 20:49 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Styrene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Tetrachloroethene	11	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-016
Client Sample ID: L-88-13

Report Date: 07/11/03
Collection Date: 06/27/03 15:05
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Trichloroethene	1.5	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
o-Xylene	ND	ug/L		0.50		E624	07/03/03 20:49 / trr
Xylenes, Total	ND	ug/L				E624	07/03/03 20:49 / trr
Surr: 1,2-Dichloroethane-d4	84.8	%REC			71-139	E624	07/03/03 20:49 / trr
Surr: p-Bromofluorobenzene	113	%REC			80-127	E624	07/03/03 20:49 / trr
Surr: Toluene-d8	114	%REC			80-123	E624	07/03/03 20:49 / trr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-017
Client Sample ID: Parisi

Report Date: 07/11/03
Collection Date: 06/27/03 15:30
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Bromoform	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/08/03 18:49 / hjc
Chloroform	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Styrene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Tetrachloroethene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-017
Client Sample ID: Parisi

Report Date: 07/11/03
Collection Date: 06/27/03 15:30
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/08/03 18:49 / hjc
Xylenes, Total	ND	ug/L				E624	07/08/03 18:49 / hjc
Surr: 1,2-Dichloroethane-d4	98.0	%REC			71-139	E624	07/08/03 18:49 / hjc
Surr: p-Bromofluorobenzene	109	%REC			80-127	E624	07/08/03 18:49 / hjc
Surr: Toluene-d8	100	%REC			80-123	E624	07/08/03 18:49 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-018
Client Sample ID: L-87-2

Report Date: 07/11/03
Collection Date: 06/27/03 16:10
Date Received: 07/01/03
Matrix: Aqueous

Don't use

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Bromoform	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Chlorobenzene	21	ug/L	1	5.0		E624	07/08/03 17:42 / hjc
Chlorobenzene	52	ug/L	E,1	0.50		E624	07/08/03 19:28 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/08/03 19:28 / hjc
Chloroform	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
2-Chlorotoluene	46	ug/L	1	5.0		E624	07/08/03 17:42 / hjc
2-Chlorotoluene	124	ug/L	E,1	0.50		E624	07/08/03 19:28 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,2-Dichlorobenzene	3.6	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,3-Dichlorobenzene	1.4	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,4-Dichlorobenzene	9.1	ug/L		0.50		E624	07/08/03 19:28 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
cis-1,2-Dichloroethene	6.9	ug/L	1	5.0		E624	07/08/03 17:42 / hjc
cis-1,2-Dichloroethene	16	ug/L		0.50		E624	07/08/03 19:28 / hjc
trans-1,2-Dichloroethene	1.6	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Ethylbenzene	0.45	ug/L	J	0.50		E624	07/08/03 19:28 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Styrene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
E - Estimated value. Result exceeds the instrument upper quantitation limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
J - Estimated value. The analyte was present but less tha the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-018
Client Sample ID: L-87-2

Report Date: 07/11/03
Collection Date: 06/27/03 16:10
Date Received: 07/01/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Tetrachloroethene	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Toluene	0.92	ug/L		0.50		E624	07/08/03 19:28 / hjc
Trichloroethene	1.3	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
Vinyl chloride	17	ug/L		0.50		E624	07/08/03 19:28 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/08/03 19:28 / hjc
o-Xylene	3.7	ug/L		0.50		E624	07/08/03 19:28 / hjc
Xylenes, Total	3.7	ug/L				E624	07/08/03 19:28 / hjc
Surr: 1,2-Dichloroethane-d4	105	%REC			71-139	E624	07/08/03 19:28 / hjc
Surr: p-Bromofluorobenzene	108	%REC			80-127	E624	07/08/03 19:28 / hjc
Surr: Toluene-d8	102	%REC			80-123	E624	07/08/03 19:28 / hjc

- 1 = The concentrations of the analytes from the original vial used for analysis appeared to be significantly higher than the concentrations found in the second vial used for dilution of analytes over the upper calibration limit. Both results from the undiluted analysis and the 10 times dilution are reported for comparison purposes.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF Livingston MT, 026021.16	**Collection Date:**	06/26/03 11:25
Lab ID:	B03070075-019	**Date Received:**	07/01/03
Client Sample ID:	Trip Blank	**Matrix:**	Trip Blank

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Bromobenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Bromochloromethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Bromodichloromethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Bromoform	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Bromomethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Carbon tetrachloride	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Chlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Chloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/02/03 18:00 / trr
Chloroform	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Chloromethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
2-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
4-Chlorotoluene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Dibromomethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Ethylbenzene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Methylene chloride	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Styrene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Tetrachloroethene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16
Lab ID: B03070075-019
Client Sample ID: Trip Blank

Report Date: 07/11/03
Collection Date: 06/26/03 11:25
Date Received: 07/01/03
Matrix: Trip Blank

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Trichloroethene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Vinyl chloride	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
m+p-Xylenes	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
o-Xylene	ND	ug/L		0.50		E624	07/02/03 18:00 / trr
Xylenes, Total	ND	ug/L				E624	07/02/03 18:00 / trr
Surr: 1,2-Dichloroethane-d4	88.8	%REC			71-139	E624	07/02/03 18:00 / trr
Surr: p-Bromofluorobenzene	106	%REC			80-127	E624	07/02/03 18:00 / trr
Surr: Toluene-d8	114	%REC			80-123	E624	07/02/03 18:00 / trr

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Method: E624 Batch: R27755

Sample ID: LCS Laboratory Control Spike 07/02/03 11:09

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Benzene	5.36	ug/L	0.500	107	72.6	122			
Bromobenzene	5.80	ug/L	0.500	116	74.1	129			
Bromochloromethane	5.72	ug/L	0.500	114	66.2	120			
Bromodichloromethane	5.20	ug/L	0.500	104	73.5	128			
Bromoform	6.04	ug/L	0.500	121	65.5	128			
Bromomethane	5.04	ug/L	0.500	101	51.3	123			
Carbon tetrachloride	5.60	ug/L	0.500	112	61.8	123			
Chlorobenzene	5.60	ug/L	0.500	112	79.8	123			
Chlorodibromomethane	5.68	ug/L	0.500	114	73.6	125			
Chloroethane	5.04	ug/L	0.500	101	58.8	142			
Chloroform	5.52	ug/L	0.500	110	68.2	124			
Chloromethane	6.44	ug/L	0.500	129	52.6	146			
2-Chlorotoluene	4.60	ug/L	0.500	92	75.3	131			
4-Chlorotoluene	6.08	ug/L	0.500	122	74.3	129			
1,2-Dibromoethane	5.88	ug/L	0.500	118	76.5	124			
Dibromomethane	5.64	ug/L	0.500	113	77.4	125			
1,2-Dichlorobenzene	5.76	ug/L	0.500	115	74.2	124			
1,3-Dichlorobenzene	5.44	ug/L	0.500	109	76.8	122			
1,4-Dichlorobenzene	5.32	ug/L	0.500	106	75.9	126			
Dichlorodifluoromethane	5.48	ug/L	0.500	110	43.6	128			
1,1-Dichloroethane	5.84	ug/L	0.500	117	74.1	133			
1,2-Dichloroethane	5.40	ug/L	0.500	108	75.4	129			
1,1-Dichloroethene	5.76	ug/L	0.500	115	74.2	132			
cis-1,2-Dichloroethene	5.76	ug/L	0.500	115	81.2	122			
trans-1,2-Dichloroethene	5.84	ug/L	0.500	117	78.6	143			
1,2-Dichloropropane	5.32	ug/L	0.500	106	74.6	126			
1,3-Dichloropropane	5.92	ug/L	0.500	118	71	136			
2,2-Dichloropropane	5.52	ug/L	0.500	110	67.5	142			
1,1-Dichloropropene	5.36	ug/L	0.500	107	70.2	131			
cis-1,3-Dichloropropene	5.32	ug/L	0.500	106	74.3	135			
trans-1,3-Dichloropropene	6.00	ug/L	0.500	120	75.5	149			
Ethylbenzene	5.12	ug/L	0.500	102	72.2	130			
Methylene chloride	5.80	ug/L	0.500	116	65.6	142			
Styrene	5.68	ug/L	0.500	114	80	124			
Tetrachloroethene	5.68	ug/L	0.500	114	71.7	131			
1,1,1,2-Tetrachloroethane	5.64	ug/L	0.500	113	77.5	124			
1,1,2,2-Tetrachloroethane	5.76	ug/L	0.500	115	67.8	137			
Toluene	5.56	ug/L	0.500	111	72.1	135			
Trichloroethene	5.48	ug/L	0.500	110	69.7	127			
1,1,1-Trichloroethane	5.36	ug/L	0.500	107	62.6	120			
1,1,2-Trichloroethane	5.52	ug/L	0.500	110	77.8	124			
Trichlorofluoromethane	4.92	ug/L	0.500	98.4	72.3	120			
1,2,3-Trichloropropane	6.00	ug/L	0.500	120	63.8	138			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside of recommended recovery limits
R - RPD outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E624**									Batch: R27755
Sample ID: **LCS**	Laboratory Control Spike								07/02/03 11:09
Vinyl chloride	4.76	ug/L	0.500	95.2	58	140			
m+p-Xylenes	11.5	ug/L	0.500	115	67.4	139			
o-Xylene	5.20	ug/L	0.500	104	74.5	135			
Xylenes, Total	16.7	ug/L		111	70	137			
Surr: 1,2-Dichloroethane-d4			0.500	92	71	139			
Surr: p-Bromofluorobenzene			0.500	105	80	127			
Surr: Toluene-d8			0.500	104	80	123			
Sample ID: **BLK**	Method Blank								07/02/03 12:28
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27755
Sample ID: BLK	Method Blank								07/02/03 12:28
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	88.8	71	139			
Surr: p-Bromofluorobenzene			0.500	106	80	127			
Surr: Toluene-d8			0.500	111	80	123			

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Method: E624 Batch: R27756

Sample ID: LCS Laboratory Control Spike 07/03/03 10:38

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Benzene	5.08	ug/L	0.500	102	72.6	122			
Bromobenzene	5.72	ug/L	0.500	114	74.1	129			
Bromochloromethane	5.44	ug/L	0.500	109	66.2	120			
Bromodichloromethane	4.80	ug/L	0.500	96	73.5	128			
Bromoform	5.12	ug/L	0.500	102	65.5	128			
Bromomethane	5.52	ug/L	0.500	110	51.3	123			
Carbon tetrachloride	5.36	ug/L	0.500	107	61.8	123			
Chlorobenzene	5.28	ug/L	0.500	106	79.8	123			
Chlorodibromomethane	5.24	ug/L	0.500	105	73.6	125			
Chloroethane	5.40	ug/L	0.500	108	58.8	142			
2-Chloroethyl vinyl ether	4.56	ug/L	1.00	91.2	36	144			
Chloroform	5.40	ug/L	0.500	108	68.2	124			
Chloromethane	6.88	ug/L	0.500	138	52.6	146			
2-Chlorotoluene	5.08	ug/L	0.500	102	75.3	131			
4-Chlorotoluene	4.96	ug/L	0.500	99.2	74.3	129			
1,2-Dibromoethane	5.28	ug/L	0.500	106	76.5	124			
Dibromomethane	4.96	ug/L	0.500	99.2	77.4	125			
1,2-Dichlorobenzene	5.52	ug/L	0.500	110	74.2	124			
1,3-Dichlorobenzene	5.52	ug/L	0.500	110	76.8	122			
1,4-Dichlorobenzene	5.36	ug/L	0.500	107	75.9	126			
Dichlorodifluoromethane	5.84	ug/L	0.500	117	43.6	128			
1,1-Dichloroethane	5.36	ug/L	0.500	107	74.1	133			
1,2-Dichloroethane	5.20	ug/L	0.500	104	75.4	129			
1,1-Dichloroethene	5.44	ug/L	0.500	109	74.2	132			
cis-1,2-Dichloroethene	5.44	ug/L	0.500	109	81.2	122			
trans-1,2-Dichloroethene	5.80	ug/L	0.500	116	78.6	143			
1,2-Dichloropropane	4.96	ug/L	0.500	99.2	74.6	126			
1,3-Dichloropropane	4.96	ug/L	0.500	99.2	71	136			
2,2-Dichloropropane	5.20	ug/L	0.500	104	67.5	142			
1,1-Dichloropropene	5.32	ug/L	0.500	106	70.2	131			
cis-1,3-Dichloropropene	5.24	ug/L	0.500	105	74.3	135			
trans-1,3-Dichloropropene	5.68	ug/L	0.500	114	75.5	149			
Ethylbenzene	4.92	ug/L	0.500	98.4	72.2	130			
Methylene chloride	5.28	ug/L	0.500	106	65.6	142			
Styrene	5.08	ug/L	0.500	102	80	124			
Tetrachloroethene	5.36	ug/L	0.500	107	71.7	131			
1,1,1,2-Tetrachloroethane	5.20	ug/L	0.500	104	77.5	124			
1,1,2,2-Tetrachloroethane	5.48	ug/L	0.500	110	67.8	137			
Toluene	5.16	ug/L	0.500	103	72.1	135			
Trichloroethene	4.80	ug/L	0.500	96	69.7	127			
1,1,1-Trichloroethane	4.96	ug/L	0.500	99.2	62.6	120			
1,1,2-Trichloroethane	6.36	ug/L	0.500	127	77.8	124			S
Trichlorofluoromethane	5.20	ug/L	0.500	104	72.3	120			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27756
Sample ID: LCS	Laboratory Control Spike								07/03/03 10:38
1,2,3-Trichloropropane	5.56	ug/L	0.500	111	63.8	138			
Vinyl chloride	5.24	ug/L	0.500	105	58	140			
m+p-Xylenes	11.3	ug/L	0.500	113	67.4	139			
o-Xylene	5.04	ug/L	0.500	101	74.5	135			
Xylenes, Total	16.4	ug/L		109	70	137			
Surr: 1,2-Dichloroethane-d4			0.500	93.2	71	139			
Surr: p-Bromofluorobenzene			0.500	108	80	127			
Surr: Toluene-d8			0.500	106	80	123			
Sample ID: blk	Method Blank								07/03/03 11:59
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27756
Sample ID: blk	Method Blank								07/03/03 11:59
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	90	71	139			
Surr: p-Bromofluorobenzene			0.500	104	80	127			
Surr: Toluene-d8			0.500	110	80	123			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27962
Sample ID: MBLK	Method Blank								07/08/03 16:01
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Method: E624 — Batch: R27962

Sample ID: **MBLK** — Method Blank — 07/08/03 16:01

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	101	71	139			
Surr: p-Bromofluorobenzene			0.500	98	80	127			
Surr: Toluene-d8			0.500	104	80	123			

Sample ID: **MBLK** — Method Blank — 07/08/03 22:14

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						

Qualifiers:
ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27962
Sample ID: MBLK	Method Blank								07/08/03 22:14
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	104	71	139			
Surr: p-Bromofluorobenzene			0.500	105	80	127			
Surr: Toluene-d8			0.500	103	80	123			
Sample ID: B03070075-002A	Sample Matrix Spike								07/09/03 01:08
Benzene	49.2	ug/L	5.00	98.4	72.6	122			
Bromobenzene	50.4	ug/L	5.00	101	74.1	129			
Bromochloromethane	42.4	ug/L	5.00	84.8	66.2	120			
Bromodichloromethane	49.6	ug/L	5.00	99.2	73.5	128			
Bromoform	50.4	ug/L	5.00	101	65.5	128			
Bromomethane	56.8	ug/L	5.00	114	51.3	123			
Carbon tetrachloride	47.6	ug/L	5.00	95.2	61.8	123			
Chlorobenzene	50.8	ug/L	5.00	102	79.8	123			
Chlorodibromomethane	48.0	ug/L	5.00	96	73.6	125			
Chloroethane	47.2	ug/L	5.00	94.4	58.8	142			
Chloroform	46.0	ug/L	5.00	92	68.2	124			
Chloromethane	49.2	ug/L	5.00	98.4	52.6	146			
2-Chlorotoluene	50.4	ug/L	5.00	101	75.3	131			
4-Chlorotoluene	51.2	ug/L	5.00	102	74.3	129			
1,2-Dibromoethane	50.4	ug/L	5.00	101	76.5	124			
Dibromomethane	50.0	ug/L	5.00	100	77.4	125			
1,2-Dichlorobenzene	52.0	ug/L	5.00	104	74.2	124			
1,3-Dichlorobenzene	50.0	ug/L	5.00	100	76.8	122			
1,4-Dichlorobenzene	49.2	ug/L	5.00	98.4	75.9	126			
Dichlorodifluoromethane	45.6	ug/L	5.00	91.2	43.6	128			
1,1-Dichloroethane	48.0	ug/L	5.00	96	74.1	133			
1,2-Dichloroethane	46.8	ug/L	5.00	93.6	75.4	129			
1,1-Dichloroethene	46.4	ug/L	5.00	92.8	74.2	132			

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624								Batch: R27962	
Sample ID: B03070075-002A	Sample Matrix Spike							07/09/03 01:08	
cis-1,2-Dichloroethene	49.2	ug/L	5.00	98.4	81.2	122			
trans-1,2-Dichloroethene	48.8	ug/L	5.00	97.6	78.6	143			
1,2-Dichloropropane	52.0	ug/L	5.00	104	74.6	126			
1,3-Dichloropropane	50.4	ug/L	5.00	101	71	136			
2,2-Dichloropropane	36.1	ug/L	5.00	72.2	67.5	142			
1,1-Dichloropropene	48.8	ug/L	5.00	97.6	70.2	131			
cis-1,3-Dichloropropene	48.4	ug/L	5.00	96.8	74.3	135			
trans-1,3-Dichloropropene	49.6	ug/L	5.00	99.2	75.5	149			
Ethylbenzene	49.2	ug/L	5.00	98.4	72.2	130			
Methylene chloride	47.6	ug/L	5.00	95.2	65.6	142			
Styrene	51.2	ug/L	5.00	102	80	124			
Tetrachloroethene	90.0	ug/L	5.00	102	71.7	131			
1,1,1,2-Tetrachloroethane	52.4	ug/L	5.00	105	77.5	124			
1,1,2,2-Tetrachloroethane	48.8	ug/L	5.00	97.6	67.8	137			
Toluene	52.8	ug/L	5.00	106	72.1	135			
Trichloroethene	54.4	ug/L	5.00	104	69.7	127			
1,1,1-Trichloroethane	47.2	ug/L	5.00	94.4	62.6	120			
1,1,2-Trichloroethane	49.6	ug/L	5.00	99.2	77.8	124			
Trichlorofluoromethane	48.0	ug/L	5.00	96	72.3	120			
1,2,3-Trichloropropane	49.2	ug/L	5.00	98.4	63.8	138			
Vinyl chloride	45.6	ug/L	5.00	91.2	58	140			
m+p-Xylenes	97.2	ug/L	5.00	97.2	67.4	139			
o-Xylene	52.4	ug/L	5.00	105	74.5	135			
Xylenes, Total	150	ug/L		99.7	70	137			
Surr: 1,2-Dichloroethane-d4			5.00	102	71	139			
Surr: p-Bromofluorobenzene			5.00	104	80	127			
Surr: Toluene-d8			5.00	100	80	123			
Sample ID: B03070075-002A	Sample Matrix Spike Duplicate							07/09/03 01:43	
Benzene	49.6	ug/L	5.00	99.2	72.6	122	0.8	20	
Bromobenzene	50.0	ug/L	5.00	100	74.1	129	0.8	20	
Bromochloromethane	44.8	ug/L	5.00	89.6	66.2	120	5.5	20	
Bromodichloromethane	49.6	ug/L	5.00	99.2	73.5	128	0	20	
Bromoform	50.0	ug/L	5.00	100	65.5	128	0.8	20	
Bromomethane	65.6	ug/L	5.00	131	51.3	123	14	20	S
Carbon tetrachloride	47.6	ug/L	5.00	95.2	61.8	123	0	20	
Chlorobenzene	51.2	ug/L	5.00	102	79.8	123	0.8	20	
Chlorodibromomethane	48.8	ug/L	5.00	97.6	73.6	125	1.7	20	
Chloroethane	45.6	ug/L	5.00	91.2	58.8	142	3.4	20	
Chloroform	46.4	ug/L	5.00	92.8	68.2	124	0.9	20	
Chloromethane	48.4	ug/L	5.00	96.8	52.6	146	1.6	20	
2-Chlorotoluene	50.0	ug/L	5.00	100	75.3	131	0.8	20	
4-Chlorotoluene	52.4	ug/L	5.00	105	74.3	129	2.3	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624								Batch: R27962	
Sample ID: B03070075-002A	Sample Matrix Spike Duplicate							07/09/03 01:43	
1,2-Dibromoethane	50.0	ug/L	5.00	100	76.5	124	0.8	20	
Dibromomethane	49.6	ug/L	5.00	99.2	77.4	125	0.8	20	
1,2-Dichlorobenzene	49.6	ug/L	5.00	99.2	74.2	124	4.7	20	
1,3-Dichlorobenzene	52.4	ug/L	5.00	105	76.8	122	4.7	20	
1,4-Dichlorobenzene	50.8	ug/L	5.00	102	75.9	126	3.2	20	
Dichlorodifluoromethane	48.4	ug/L	5.00	96.8	43.6	128	6.0	20	
1,1-Dichloroethane	46.4	ug/L	5.00	92.8	74.1	133	3.4	20	
1,2-Dichloroethane	45.6	ug/L	5.00	91.2	75.4	129	2.6	20	
1,1-Dichloroethene	45.2	ug/L	5.00	90.4	74.2	132	2.6	20	
cis-1,2-Dichloroethene	49.6	ug/L	5.00	99.2	81.2	122	0.8	20	
trans-1,2-Dichloroethene	47.6	ug/L	5.00	95.2	78.6	143	2.5	20	
1,2-Dichloropropane	52.0	ug/L	5.00	104	74.6	126	0	20	
1,3-Dichloropropane	48.8	ug/L	5.00	97.6	71	136	3.2	20	
2,2-Dichloropropane	36.2	ug/L	5.00	72.4	67.5	142	0.2	20	
1,1-Dichloropropene	49.6	ug/L	5.00	99.2	70.2	131	1.6	20	
cis-1,3-Dichloropropene	48.8	ug/L	5.00	97.6	74.3	135	0.8	20	
trans-1,3-Dichloropropene	51.2	ug/L	5.00	102	75.5	149	3.2	20	
Ethylbenzene	48.4	ug/L	5.00	96.8	72.2	130	1.6	20	
Methylene chloride	46.4	ug/L	5.00	92.8	65.6	142	2.6	20	
Styrene	51.2	ug/L	5.00	102	80	124	0	20	
Tetrachloroethene	93.6	ug/L	5.00	109	71.7	131	3.9	20	
1,1,1,2-Tetrachloroethane	52.4	ug/L	5.00	105	77.5	124	0	20	
1,1,2,2-Tetrachloroethane	50.0	ug/L	5.00	100	67.8	137	2.4	20	
Toluene	52.4	ug/L	5.00	105	72.1	135	0.8	20	
Trichloroethene	54.8	ug/L	5.00	104	69.7	127	0.7	20	
1,1,1-Trichloroethane	47.6	ug/L	5.00	95.2	62.6	120	0.8	20	
1,1,2-Trichloroethane	49.2	ug/L	5.00	98.4	77.8	124	0.8	20	
Trichlorofluoromethane	46.4	ug/L	5.00	92.8	72.3	120	3.4	20	
1,2,3-Trichloropropane	48.4	ug/L	5.00	96.8	63.8	138	1.6	20	
Vinyl chloride	47.2	ug/L	5.00	94.4	58	140	3.4	20	
m+p-Xylenes	99.2	ug/L	5.00	99.2	67.4	139	2.0	20	
o-Xylene	50.4	ug/L	5.00	101	74.5	135	3.9	20	
Xylenes, Total	150	ug/L		99.7	70	137	0	20	
Surr: 1,2-Dichloroethane-d4			5.00	98	71	139			
Surr: p-Bromofluorobenzene			5.00	100	80	127			
Surr: Toluene-d8			5.00	98.4	80	123			
Sample ID: LCSa	Laboratory Control Spike							07/08/03 12:01	
Benzene	4.96	ug/L	0.500	99.2	72.6	122			
Bromobenzene	5.12	ug/L	0.500	102	74.1	129			
Bromochloromethane	4.48	ug/L	0.500	89.6	66.2	120			
Bromodichloromethane	4.76	ug/L	0.500	95.2	73.5	128			
Bromoform	5.24	ug/L	0.500	105	65.5	128			

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way **Report Date:** 07/10/03
Project: BNSF Livingston MT, 026021.16 **Work Order:** B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27962
Sample ID: LCSa	Laboratory Control Spike								07/08/03 12:01
Bromomethane	6.88	ug/L	0.500	138	51.3	123			S
Carbon tetrachloride	4.88	ug/L	0.500	97.6	61.8	123			
Chlorobenzene	5.36	ug/L	0.500	107	79.8	123			
Chlorodibromomethane	5.16	ug/L	0.500	103	73.6	125			
Chloroethane	4.84	ug/L	0.500	96.8	58.8	142			
2-Chloroethyl vinyl ether	4.80	ug/L	1.00	96	36	144			
Chloroform	4.80	ug/L	0.500	96	68.2	124			
Chloromethane	6.04	ug/L	0.500	121	52.6	146			
2-Chlorotoluene	5.32	ug/L	0.500	106	75.3	131			
4-Chlorotoluene	5.56	ug/L	0.500	111	74.3	129			
1,2-Dibromoethane	5.00	ug/L	0.500	100	76.5	124			
Dibromomethane	5.12	ug/L	0.500	102	77.4	125			
1,2-Dichlorobenzene	5.20	ug/L	0.500	104	74.2	124			
1,3-Dichlorobenzene	5.24	ug/L	0.500	105	76.8	122			
1,4-Dichlorobenzene	5.28	ug/L	0.500	106	75.9	126			
Dichlorodifluoromethane	5.16	ug/L	0.500	103	43.6	128			
1,1-Dichloroethane	4.56	ug/L	0.500	91.2	74.1	133			
1,2-Dichloroethane	4.80	ug/L	0.500	96	75.4	129			
1,1-Dichloroethene	4.92	ug/L	0.500	98.4	74.2	132			
cis-1,2-Dichloroethene	4.76	ug/L	0.500	95.2	81.2	122			
trans-1,2-Dichloroethene	5.28	ug/L	0.500	106	78.6	143			
1,2-Dichloropropane	4.84	ug/L	0.500	96.8	74.6	126			
1,3-Dichloropropane	5.16	ug/L	0.500	103	71	136			
2,2-Dichloropropane	4.96	ug/L	0.500	99.2	67.5	142			
1,1-Dichloropropene	5.24	ug/L	0.500	105	70.2	131			
cis-1,3-Dichloropropene	5.00	ug/L	0.500	100	74.3	135			
trans-1,3-Dichloropropene	5.52	ug/L	0.500	110	75.5	149			
Ethylbenzene	5.12	ug/L	0.500	102	72.2	130			
Methylene chloride	4.84	ug/L	0.500	96.8	65.6	142			
Styrene	4.96	ug/L	0.500	99.2	80	124			
Tetrachloroethene	5.28	ug/L	0.500	106	71.7	131			
1,1,1,2-Tetrachloroethane	5.40	ug/L	0.500	108	77.5	124			
1,1,2,2-Tetrachloroethane	4.92	ug/L	0.500	98.4	67.8	137			
Toluene	5.16	ug/L	0.500	103	72.1	135			
Trichloroethene	4.88	ug/L	0.500	97.6	69.7	127			
1,1,1-Trichloroethane	4.80	ug/L	0.500	96	62.6	120			
1,1,2-Trichloroethane	4.92	ug/L	0.500	98.4	77.8	124			
Trichlorofluoromethane	4.92	ug/L	0.500	98.4	72.3	120			
1,2,3-Trichloropropane	5.20	ug/L	0.500	104	63.8	138			
Vinyl chloride	4.72	ug/L	0.500	94.4	58	140			
m+p-Xylenes	9.80	ug/L	0.500	98	67.4	139			
o-Xylene	5.28	ug/L	0.500	106	74.5	135			
Xylenes, Total	15.1	ug/L		101	70	137			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF Livingston MT, 026021.16

Report Date: 07/10/03
Work Order: B03070075

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27962
Sample ID: LCSa	Laboratory Control Spike								07/08/03 12:01
Surr: 1,2-Dichloroethane-d4			0.500	98	71	139			
Surr: p-Bromofluorobenzene			0.500	102	80	127			
Surr: Toluene-d8			0.500	95.6	80	123			

Energy Laboratories Inc

Sample Receipt Checklist

Client Name **KNNDY-JNKS-FDRL-WY**

Date and Time Received: 7/1/2003

Work Order Number **B03070075**

Received by dlr

Checklist completed b 07/01/03
Signature Date

Reviewed by
Initials Date

Carrier name UPS ARS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4 °C On Ice
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? ________ Checked by ________

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding ________

Comments:

Samples B03070075-001 thru 010 on the COC were listed as sampled in November of 2003, the sample bottles had June of 2003 which we used.

Corrective Action ________

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 2

PLEASE PRINT, provide as much information as possible.
Refer to corresponding notes on reverse side.

Company Name: Kennedy Jenks Consultants

Project Name, PWS #, Permit #, Etc.: BNSF Livingston, MT 026021.16

Report Address: 32001 32nd Ave S Suite 100
Federal Way, WA 98001

Contact Name, Phone, Fax, E-mail: Sarah Kraje
253 874 0555

Sampler Name if other than Contact: John Morris

Invoice Address: Same

Invoice Contact & Phone #: Same

Purchase Order #:

ELI Quote #:

Report Required For: POTW/WWTP DW
Other ______

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other ______
EDD/EDT ☐ Format ______

ANALYSIS REQUESTED: VOC 624; SEE ATTACHED; Normal Turnaround (TAT); RUSH Turnaround (TAT)

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: with detection limit < 0.5
Samples 001→010 took 6/26 and 6/27 sample date from bottles not 11-26 per lab COC.

Receipt Temp ______ °C

Cooler ID(s): B0167

Custody Seal [✓ Y] N
Intact [✓ Y] N
Signature Match [✓ Y] N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other MATRIX	VOC 624	Comments	LABORATORY USE ONLY
1	90-3	11/26/03	11:25	W	3	~~w/ detection~~	B03070075-001
2	89-9	11/26/03	12:50	W	3	~~limit < 0.5~~	002
3	89-8	11/26/03	1:10	W	3	All VOC	003
4	89-3	11/26/03	2:15	W	3	vials have	004
5	90-6	11/26/03	4:20	W	3	5 drops HCl	005
6	92-1	11/26/03	4:55	W	3		006
7	L-87-5	11/26/03	5:10	W	3		007
8	L-87-2	11/26/03	5:45	W	3		008
9	Rainbow	11/27/03	8:35	W	3		009
10	MW-12	11/27/03	9:55	W	3		010

Custody Record MUST be Signed

Relinquished by: Sarah Kraje Date/Time: 6/30/03 8:30AM
Shipped by:
Received by: Date/Time:

Relinquished by: Date/Time:
Shipped by: UPS ABS Ground
Received by: Date/Time: 07/01/03 0900

Sample Disposal: Return to client: ______ Lab Disposal: ______

LABORATORY USE ONLY
Sample Type: ______ # of fractions ______

Visit our web site at *www.energylab.com* for additional information, downloadable fee schedule, forms, & links.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 2 of 2

PLEASE PRINT, provide as much information as possible.
Refer to corresponding notes on reverse side.

Company Name: Kennedy Jenks Consultants
Project Name, PWS #, Permit #, Etc.: BNSF Livingston, MT 0260.21.16
Report Address: 32001 ~~S~~ 32nd Ave S. Suite 100 Federal Way, WA
Contact Name, Phone, Fax, E-mail: Sarah Krajo 253 874 0555
Sampler Name if other than Contact: John Norris
Invoice Address: Same
Invoice Contact & Phone #: Same
Purchase Order #:
ELI Quote #:

Report Required For: POTW/WWTP DW
Other ____________

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other ____________
EDD/EDT ☐ Format ____________

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: with detection limit of <0.5

Receipt Temp ______ °C
Cooler ID(s) B0167
Custody Seal [✓ Y] N
Intact [✓ Y] N
Signature Match [✓ Y] N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other MATRIX	VOC 624									SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)		LABORATORY USE ONLY Lab ID
1	89-2	6/27/03	11:05	W	3												All VOC's	B03070075-011
2	O'Hara	6/27/03	11:32	W	3												vials have	012
3	L-87-3	6/27/03	1:50	W	3												5	013
4	89-6	6/27/03	2:00	W	3													014
5	L-88-10	6/27/03	2:35	W	3													015
6	L-88-13	6/27/03	3:05	W	3													016
7	Parisi	6/27/03	3:30	W	3													017
8	L-87-2	6/27/03	4:10	W	3													018
9	Trip Blank																	019
10																		

Custody Record MUST be Signed

Relinquished by: Sarah C Krajo Date/Time: 6/30/03 8:30AM Shipped by:
Relinquished by: Date/Time: Shipped by: UPS ARS Ground
Received by: Date/Time:
Received by: Date/Time: 07/01/03 0900

Sample Disposal: Return to client: ______ Lab Disposal: ______

LABORATORY USE ONLY
Sample Type: ______ # of fractions ______

Visit our web site at *www.energylab.com* for additional information, downloadable fee schedule, forms, & links.

ENERGY LABORATORIES
ENERGY LABORATORIES, INC. • P.O. Box 30916 • 1120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

ANALYTICAL SUMMARY REPORT

July 15, 2003

Sarah Kraja
Kennedy Jenks Consultants-Federal Way
32001 32nd Ave South, Ste 100
Federal Way, WA 98001

Workorder No.: B03070216

Project Name: BNSF-Livingston, MT, 026021.16

Energy Laboratories Inc received the following 16 samples from Kennedy Jenks Consultants-Federal Way on 7/3/2003 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B03070216-001	11	06/30/03 9:45	07/03/03	Aqueous	624-Purgeable Organics
B03070216-002	11d	06/30/03 9:45	07/03/03	Aqueous	Same As Above
B03070216-003	LS-11	06/30/03 9:15	07/03/03	Aqueous	Same As Above
B03070216-004	Depuy	06/30/03 11:35	07/03/03	Aqueous	Same As Above
B03070216-005	L-87-8	06/30/03 12:10	07/03/03	Aqueous	Same As Above
B03070216-006	3	06/30/03 14:15	07/03/03	Aqueous	Same As Above
B03070216-007	6	06/30/03 14:50	07/03/03	Aqueous	Same As Above
B03070216-008	89-10	06/30/03 16:20	07/03/03	Aqueous	Same As Above
B03070216-009	92-4	06/30/03 17:15	07/03/03	Aqueous	Same As Above
B03070216-010	MW-11	07/01/03 9:35	07/03/03	Aqueous	Same As Above
B03070216-011	89-4	07/01/03 10:30	07/03/03	Aqueous	Same As Above
B03070216-012	94-2	07/01/03 12:10	07/03/03	Aqueous	Same As Above
B03070216-013	94-1	07/01/03 14:15	07/03/03	Aqueous	Same As Above
B03070216-014	92-2	07/01/03 14:55	07/03/03	Aqueous	Same As Above
B03070216-015	MW-10	07/02/03 12:10	07/03/03	Aqueous	Same As Above
B03070216-016	Trip Blank	06/30/03 9:45	07/03/03	Aqueous	Same As Above

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except if noted in report comments or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Date: *15-Jul-03*

CLIENT: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Sample Delivery Group: B03070216

CASE NARRATIVE

Sample MW-10 was received at the laboratory marked as a 'hold'.
Analysis of this sample was requested on July 8, 2003 by Sarah Kraja.

ENERGY LABORATORIES, INC. • P.O. Box 30916 • 1120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-001
Client Sample ID: 11

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 12:53 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Tetrachloroethene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-001
Client Sample ID: 11

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 12:53 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 12:53 / hjc
Surr: 1,2-Dichloroethane-d4	97.2	%REC			71-139	E624	07/09/03 12:53 / hjc
Surr: p-Bromofluorobenzene	95.6	%REC			80-127	E624	07/09/03 12:53 / hjc
Surr: Toluene-d8	98.4	%REC			80-123	E624	07/09/03 12:53 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-002
Client Sample ID: 11d

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 13:26 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Tetrachloroethene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-002
Client Sample ID: 11d

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 13:26 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 13:26 / hjc
Surr: 1,2-Dichloroethane-d4	99.6	%REC			71-139	E624	07/09/03 13:26 / hjc
Surr: p-Bromofluorobenzene	102	%REC			80-127	E624	07/09/03 13:26 / hjc
Surr: Toluene-d8	105	%REC			80-123	E624	07/09/03 13:26 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-003
Client Sample ID: LS-11

Report Date: 07/11/03
Collection Date: 06/30/03 09:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Chlorobenzene	0.96	ug/L		0.50		E624	07/09/03 13:59 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 13:59 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,2-Dichlorobenzene	1.7	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,4-Dichlorobenzene	1.6	ug/L		0.50		E624	07/09/03 13:59 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
cis-1,2-Dichloroethene	3.9	ug/L		0.50		E624	07/09/03 13:59 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Tetrachloroethene	22	ug/L		5.0		E624	07/10/03 13:31 / sbd
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-003
Client Sample ID: LS-11

Report Date: 07/11/03
Collection Date: 06/30/03 09:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Trichloroethene	4.8	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 13:59 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 13:59 / hjc
Surr: 1,2-Dichloroethane-d4	100	%REC			71-139	E624	07/09/03 13:59 / hjc
Surr: p-Bromofluorobenzene	99.2	%REC			80-127	E624	07/09/03 13:59 / hjc
Surr: Toluene-d8	96.8	%REC			80-123	E624	07/09/03 13:59 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-004
Client Sample ID: Depuy

Report Date: 07/11/03
Collection Date: 06/30/03 11:35
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 14:31 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Tetrachloroethene	2.0	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-004
Client Sample ID: Depuy

Report Date: 07/11/03
Collection Date: 06/30/03 11:35
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Trichloroethene	0.45	ug/L	J	0.50		E624	07/09/03 14:31 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 14:31 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 14:31 / hjc
Surr: 1,2-Dichloroethane-d4	97.6	%REC			71-139	E624	07/09/03 14:31 / hjc
Surr: p-Bromofluorobenzene	96.4	%REC			80-127	E624	07/09/03 14:31 / hjc
Surr: Toluene-d8	99.6	%REC			80-123	E624	07/09/03 14:31 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES
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800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	06/30/03 12:10
Lab ID:	B03070216-005	**Date Received:**	07/03/03
Client Sample ID:	L-87-8	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Bromobenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Bromochloromethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Bromodichloromethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Bromoform	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Bromomethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Carbon tetrachloride	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Chlorobenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Chlorodibromomethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Chloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
2-Chloroethyl vinyl ether	ND	ug/L		5.0		E624	07/10/03 14:04 / sbd
Chloroform	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Chloromethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
2-Chlorotoluene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
4-Chlorotoluene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,2-Dibromoethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Dibromomethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,2-Dichlorobenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,3-Dichlorobenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,4-Dichlorobenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Dichlorodifluoromethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1-Dichloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,2-Dichloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1-Dichloroethene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
cis-1,2-Dichloroethene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
trans-1,2-Dichloroethene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,2-Dichloropropane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,3-Dichloropropane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
2,2-Dichloropropane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1-Dichloropropene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
cis-1,3-Dichloropropene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
trans-1,3-Dichloropropene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Ethylbenzene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Methylene chloride	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Styrene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Tetrachloroethene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1,1,2-Tetrachloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1,2,2-Tetrachloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	06/30/03 12:10
Lab ID:	B03070216-005	**Date Received:**	07/03/03
Client Sample ID:	L-87-8	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Trichloroethene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1,1-Trichloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,1,2-Trichloroethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Trichlorofluoromethane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
1,2,3-Trichloropropane	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Vinyl chloride	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
m+p-Xylenes	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
o-Xylene	ND	ug/L		2.5		E624	07/10/03 14:04 / sbd
Xylenes, Total	ND	ug/L				E624	07/10/03 14:04 / sbd
Surr: 1,2-Dichloroethane-d4	97.6	%REC			71-139	E624	07/10/03 14:04 / sbd
Surr: p-Bromofluorobenzene	94.4	%REC			80-127	E624	07/10/03 14:04 / sbd
Surr: Toluene-d8	110	%REC			80-123	E624	07/10/03 14:04 / sbd

- The reporting limit reflects a 5 times dilution. The sample was diluted due to sample matrix interference.

Report Definitions:	RL - Analyte reporting limit. QCL - Quality control limit.	MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-006
Client Sample ID: 3

Report Date: 07/11/03
Collection Date: 06/30/03 14:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 15:38 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Tetrachloroethene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-006
Client Sample ID: 3

Report Date: 07/11/03
Collection Date: 06/30/03 14:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 15:38 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 15:38 / hjc
Surr: 1,2-Dichloroethane-d4	99.2	%REC			71-139	E624	07/09/03 15:38 / hjc
Surr: p-Bromofluorobenzene	101	%REC			80-127	E624	07/09/03 15:38 / hjc
Surr: Toluene-d8	104	%REC			80-123	E624	07/09/03 15:38 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-007
Client Sample ID: 6

Report Date: 07/11/03
Collection Date: 06/30/03 14:50
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 16:11 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Tetrachloroethene	1.6	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	06/30/03 14:50
Lab ID:	B03070216-007	**Date Received:**	07/03/03
Client Sample ID:	6	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 16:11 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 16:11 / hjc
Surr: 1,2-Dichloroethane-d4	103	%REC			71-139	E624	07/09/03 16:11 / hjc
Surr: p-Bromofluorobenzene	102	%REC			80-127	E624	07/09/03 16:11 / hjc
Surr: Toluene-d8	106	%REC			80-123	E624	07/09/03 16:11 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	06/30/03 16:20
Lab ID:	B03070216-008	**Date Received:**	07/03/03
Client Sample ID:	89-10	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 16:44 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
cis-1,2-Dichloroethene	3.2	ug/L		0.50		E624	07/09/03 16:44 / hjc
trans-1,2-Dichloroethene	0.42	ug/L	J	0.50		E624	07/09/03 16:44 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Tetrachloroethene	31	ug/L		5.0		E624	07/10/03 14:37 / sbd
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.
	J - Estimated value. The analyte was present but less than the reporting limit.	

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	06/30/03 16:20
Lab ID:	B03070216-008	**Date Received:**	07/03/03
Client Sample ID:	89-10	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Trichloroethene	4.0	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 16:44 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 16:44 / hjc
Surr: 1,2-Dichloroethane-d4	103	%REC			71-139	E624	07/09/03 16:44 / hjc
Surr: p-Bromofluorobenzene	97.6	%REC			80-127	E624	07/09/03 16:44 / hjc
Surr: Toluene-d8	102	%REC			80-123	E624	07/09/03 16:44 / hjc

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. • P.O. Box 30916 • 1120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-009
Client Sample ID: 92-4

Report Date: 07/11/03
Collection Date: 06/30/03 17:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 17:18 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
cis-1,2-Dichloroethene	0.45	ug/L	J	0.50		E624	07/09/03 17:18 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Tetrachloroethene	6.6	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-009
Client Sample ID: 92-4

Report Date: 07/11/03
Collection Date: 06/30/03 17:15
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Trichloroethene	1.0	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 17:18 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 17:18 / hjc
Surr: 1,2-Dichloroethane-d4	102	%REC			71-139	E624	07/09/03 17:18 / hjc
Surr: p-Bromofluorobenzene	105	%REC			80-127	E624	07/09/03 17:18 / hjc
Surr: Toluene-d8	107	%REC			80-123	E624	07/09/03 17:18 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	07/01/03 09:35
Lab ID:	B03070216-010	**Date Received:**	07/03/03
Client Sample ID:	MW-11	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 17:51 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Tetrachloroethene	5.8	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc

Report Definitions:	RL - Analyte reporting limit. QCL - Quality control limit.	MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-010
Client Sample ID: MW-11

Report Date: 07/11/03
Collection Date: 07/01/03 09:35
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 17:51 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 17:51 / hjc
Surr: 1,2-Dichloroethane-d4	101	%REC			71-139	E624	07/09/03 17:51 / hjc
Surr: p-Bromofluorobenzene	102	%REC			80-127	E624	07/09/03 17:51 / hjc
Surr: Toluene-d8	110	%REC			80-123	E624	07/09/03 17:51 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-011
Client Sample ID: 89-4

Report Date: 07/11/03
Collection Date: 07/01/03 10:30
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 18:25 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
cis-1,2-Dichloroethene	19	ug/L		0.50		E624	07/09/03 18:25 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Tetrachloroethene	82	ug/L		5.0		E624	07/10/03 15:10 / sbd
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-011
Client Sample ID: 89-4

Report Date: 07/11/03
Collection Date: 07/01/03 10:30
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Trichloroethene	1.5	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 18:25 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 18:25 / hjc
Surr: 1,2-Dichloroethane-d4	99.6	%REC			71-139	E624	07/09/03 18:25 / hjc
Surr: p-Bromofluorobenzene	106	%REC			80-127	E624	07/09/03 18:25 / hjc
Surr: Toluene-d8	106	%REC			80-123	E624	07/09/03 18:25 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-012
Client Sample ID: 94-2

Report Date: 07/11/03
Collection Date: 07/01/03 12:10
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Bromobenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Bromochloromethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Bromodichloromethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Bromoform	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Bromomethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Carbon tetrachloride	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Chlorobenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Chlorodibromomethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Chloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/10/03 12:59 / sbd
Chloroform	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Chloromethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
2-Chlorotoluene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
4-Chlorotoluene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Dibromomethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Ethylbenzene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Methylene chloride	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Styrene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Tetrachloroethene	0.21	ug/L	J	0.50		E624	07/10/03 12:59 / sbd
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES, INC. • P.O. Box 30916 • 1120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-012
Client Sample ID: 94-2

Report Date: 07/11/03
Collection Date: 07/01/03 12:10
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Trichloroethene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Vinyl chloride	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
m+p-Xylenes	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
o-Xylene	ND	ug/L		0.50		E624	07/10/03 12:59 / sbd
Xylenes, Total	ND	ug/L				E624	07/10/03 12:59 / sbd
Surr: 1,2-Dichloroethane-d4	98.4	%REC			71-139	E624	07/10/03 12:59 / sbd
Surr: p-Bromofluorobenzene	96.0	%REC			80-127	E624	07/10/03 12:59 / sbd
Surr: Toluene-d8	104	%REC			80-123	E624	07/10/03 12:59 / sbd

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	07/01/03 14:15
Lab ID:	B03070216-013	**Date Received:**	07/03/03
Client Sample ID:	94-1	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 19:32 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 19.32 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 19.32 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Tetrachloroethene	1.7	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client:	Kennedy Jenks Consultants-Federal Way	**Report Date:**	07/11/03
Project:	BNSF-Livingston, MT, 026021.16	**Collection Date:**	07/01/03 14:15
Lab ID:	B03070216-013	**Date Received:**	07/03/03
Client Sample ID:	94-1	**Matrix:**	Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 19:32 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 19:32 / hjc
Surr: 1,2-Dichloroethane-d4	99.6	%REC			71-139	E624	07/09/03 19:32 / hjc
Surr: p-Bromofluorobenzene	102	%REC			80-127	E624	07/09/03 19:32 / hjc
Surr: Toluene-d8	105	%REC			80-123	E624	07/09/03 19:32 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-014
Client Sample ID: 92-2

Report Date: 07/11/03
Collection Date: 07/01/03 14:55
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 22:53 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
cis-1,2-Dichloroethene	0.48	ug/L	J	0.50		E624	07/09/03 22:53 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Tetrachloroethene	11	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-014
Client Sample ID: 92-2

Report Date: 07/11/03
Collection Date: 07/01/03 14:55
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Trichloroethene	0.83	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 22:53 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 22:53 / hjc
Surr: 1,2-Dichloroethane-d4	99.6	%REC			71-139	E624	07/09/03 22:53 / hjc
Surr: p-Bromofluorobenzene	96.8	%REC			80-127	E624	07/09/03 22:53 / hjc
Surr: Toluene-d8	105	%REC			80-123	E624	07/09/03 22:53 / hjc

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-015
Client Sample ID: MW-10

Report Date: 07/11/03
Collection Date: 07/02/03 12:10
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 23:27 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Tetrachloroethene	0.96	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc

Report Definitions:		
	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-015
Client Sample ID: MW-10

Report Date: 07/11/03
Collection Date: 07/02/03 12:10
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 23:27 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 23:27 / hjc
Surr: 1,2-Dichloroethane-d4	101	%REC			71-139	E624	07/09/03 23:27 / hjc
Surr: p-Bromofluorobenzene	93.6	%REC			80-127	E624	07/09/03 23:27 / hjc
Surr: Toluene-d8	106	%REC			80-123	E624	07/09/03 23:27 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-016
Client Sample ID: Trip Blank

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Bromobenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Bromochloromethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Bromodichloromethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Bromoform	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Bromomethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Carbon tetrachloride	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Chlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Chlorodibromomethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Chloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
2-Chloroethyl vinyl ether	ND	ug/L		1.0		E624	07/09/03 12:20 / hjc
Chloroform	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Chloromethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
2-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
4-Chlorotoluene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,2-Dibromoethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Dibromomethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,2-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,3-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,4-Dichlorobenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Dichlorodifluoromethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,2-Dichloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
cis-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
trans-1,2-Dichloroethene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,3-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
2,2-Dichloropropane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
cis-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
trans-1,3-Dichloropropene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Ethylbenzene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Methylene chloride	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Styrene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Tetrachloroethene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ENERGY LABORATORIES
ENERGY LABORATORIES, INC. • P.O. Box 30916 • 7120 South 27th Street • Billings, MT 59107-0916
800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16
Lab ID: B03070216-016
Client Sample ID: Trip Blank

Report Date: 07/11/03
Collection Date: 06/30/03 09:45
Date Received: 07/03/03
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Toluene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Trichloroethene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1,1-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,1,2-Trichloroethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Trichlorofluoromethane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
1,2,3-Trichloropropane	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Vinyl chloride	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
m+p-Xylenes	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
o-Xylene	ND	ug/L		0.50		E624	07/09/03 12:20 / hjc
Xylenes, Total	ND	ug/L				E624	07/09/03 12:20 / hjc
Surr: 1,2-Dichloroethane-d4	95.2	%REC			71-139	E624	07/09/03 12:20 / hjc
Surr: p-Bromofluorobenzene	98.0	%REC			80-127	E624	07/09/03 12:20 / hjc
Surr: Toluene-d8	99.6	%REC			80-123	E624	07/09/03 12:20 / hjc

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Method: E624 Batch: R27970

Sample ID: lcs071003 Laboratory Control Spike 07/10/03 11:04

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Benzene	4.88	ug/L	0.500	97.6	72.6	122			
Bromobenzene	5.08	ug/L	0.500	102	74.1	129			
Bromochloromethane	4.32	ug/L	0.500	86.4	66.2	120			
Bromodichloromethane	4.76	ug/L	0.500	95.2	73.5	128			
Bromoform	5.08	ug/L	0.500	102	65.5	128			
Bromomethane	6.24	ug/L	0.500	125	51.3	123			S
Carbon tetrachloride	4.80	ug/L	0.500	96	61.8	123			
Chlorobenzene	5.00	ug/L	0.500	100	79.8	123			
Chlorodibromomethane	5.04	ug/L	0.500	101	73.6	125			
Chloroethane	4.40	ug/L	0.500	88	58.8	142			
2-Chloroethyl vinyl ether	4.32	ug/L	1.00	86.4	36	144			
Chloroform	4.72	ug/L	0.500	94.4	68.2	124			
Chloromethane	5.52	ug/L	0.500	110	52.6	146			
2-Chlorotoluene	5.00	ug/L	0.500	100	75.3	131			
4-Chlorotoluene	5.28	ug/L	0.500	106	74.3	129			
1,2-Dibromoethane	4.92	ug/L	0.500	98.4	76.5	124			
Dibromomethane	4.96	ug/L	0.500	99.2	77.4	125			
1,2-Dichlorobenzene	5.24	ug/L	0.500	105	74.2	124			
1,3-Dichlorobenzene	5.08	ug/L	0.500	102	76.8	122			
1,4-Dichlorobenzene	5.00	ug/L	0.500	100	75.9	126			
Dichlorodifluoromethane	4.88	ug/L	0.500	97.6	43.6	128			
1,1-Dichloroethane	4.68	ug/L	0.500	93.6	74.1	133			
1,2-Dichloroethane	4.84	ug/L	0.500	96.8	75.4	129			
1,1-Dichloroethene	4.88	ug/L	0.500	97.6	74.2	132			
cis-1,2-Dichloroethene	4.44	ug/L	0.500	88.8	81.2	122			
trans-1,2-Dichloroethene	5.00	ug/L	0.500	100	78.6	143			
1,2-Dichloropropane	5.00	ug/L	0.500	100	74.6	126			
1,3-Dichloropropane	5.12	ug/L	0.500	102	71	136			
2,2-Dichloropropane	5.24	ug/L	0.500	105	67.5	142			
1,1-Dichloropropene	5.16	ug/L	0.500	103	70.2	131			
cis-1,3-Dichloropropene	5.00	ug/L	0.500	100	74.3	135			
trans-1,3-Dichloropropene	5.72	ug/L	0.500	114	75.5	149			
Ethylbenzene	4.92	ug/L	0.500	98.4	72.2	130			
Methylene chloride	4.76	ug/L	0.500	95.2	65.6	142			
Styrene	5.00	ug/L	0.500	100	80	124			
Tetrachloroethene	5.40	ug/L	0.500	108	71.7	131			
1,1,1,2-Tetrachloroethane	5.16	ug/L	0.500	103	77.5	124			
1,1,2,2-Tetrachloroethane	4.96	ug/L	0.500	99.2	67.8	137			
Toluene	5.28	ug/L	0.500	106	72.1	135			
Trichloroethene	5.12	ug/L	0.500	102	69.7	127			
1,1,1-Trichloroethane	4.80	ug/L	0.500	96	62.6	120			
1,1,2-Trichloroethane	5.00	ug/L	0.500	100	77.8	124			
Trichlorofluoromethane	4.48	ug/L	0.500	89.6	72.3	120			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27970
Sample ID: lcs071003	Laboratory Control Spike								07/10/03 11:04
1,2,3-Trichloropropane	5.40	ug/L	0.500	108	63.8	138			
Vinyl chloride	4.48	ug/L	0.500	89.6	58	140			
m+p-Xylenes	9.76	ug/L	0.500	97.6	67.4	139			
o-Xylene	5.08	ug/L	0.500	102	74.5	135			
Xylenes, Total	14.8	ug/L		98.9	70	137			
Surr: 1,2-Dichloroethane-d4			0.500	97.2	71	139			
Surr: p-Bromofluorobenzene			0.500	98.4	80	127			
Surr: Toluene-d8			0.500	99.6	80	123			
Sample ID: mblk0710	Method Blank								07/10/03 12:26
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27970
Sample ID: mblk0710	Method Blank								07/10/03 12:26
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	97.6	71	139			
Surr: p-Bromofluorobenzene			0.500	94.4	80	127			
Surr: Toluene-d8			0.500	108	80	123			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Method: E624 Batch: R27997

Sample ID: LCS Laboratory Control Spike 07/09/03 09:55

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Benzene	4.96	ug/L	0.500	99.2	72.6	122			
Bromobenzene	4.68	ug/L	0.500	93.6	74.1	129			
Bromochloromethane	4.40	ug/L	0.500	88	66.2	120			
Bromodichloromethane	4.32	ug/L	0.500	86.4	73.5	128			
Bromoform	4.72	ug/L	0.500	94.4	65.5	128			
Bromomethane	6.64	ug/L	0.500	133	51.3	123			S
Carbon tetrachloride	4.84	ug/L	0.500	96.8	61.8	123			
Chlorobenzene	4.88	ug/L	0.500	97.6	79.8	123			
Chlorodibromomethane	4.60	ug/L	0.500	92	73.6	125			
Chloroethane	4.96	ug/L	0.500	99.2	58.8	142			
2-Chloroethyl vinyl ether	4.44	ug/L	1.00	88.8	36	144			
Chloroform	4.56	ug/L	0.500	91.2	68.2	124			
Chloromethane	6.80	ug/L	0.500	136	52.6	146			
2-Chlorotoluene	4.72	ug/L	0.500	94.4	75.3	131			
4-Chlorotoluene	4.96	ug/L	0.500	99.2	74.3	129			
1,2-Dibromoethane	4.92	ug/L	0.500	98.4	76.5	124			
Dibromomethane	4.52	ug/L	0.500	90.4	77.4	125			
1,2-Dichlorobenzene	5.00	ug/L	0.500	100	74.2	124			
1,3-Dichlorobenzene	4.96	ug/L	0.500	99.2	76.8	122			
1,4-Dichlorobenzene	4.84	ug/L	0.500	96.8	75.9	126			
Dichlorodifluoromethane	5.68	ug/L	0.500	114	43.6	128			
1,1-Dichloroethane	4.72	ug/L	0.500	94.4	74.1	133			
1,2-Dichloroethane	4.80	ug/L	0.500	96	75.4	129			
1,1-Dichloroethene	4.68	ug/L	0.500	93.6	74.2	132			
cis-1,2-Dichloroethene	4.80	ug/L	0.500	96	81.2	122			
trans-1,2-Dichloroethene	5.08	ug/L	0.500	102	78.6	143			
1,2-Dichloropropane	4.56	ug/L	0.500	91.2	74.6	126			
1,3-Dichloropropane	4.64	ug/L	0.500	92.8	71	136			
2,2-Dichloropropane	5.04	ug/L	0.500	101	67.5	142			
1,1-Dichloropropene	5.00	ug/L	0.500	100	70.2	131			
cis-1,3-Dichloropropene	4.60	ug/L	0.500	92	74.3	135			
trans-1,3-Dichloropropene	5.20	ug/L	0.500	104	75.5	149			
Ethylbenzene	4.64	ug/L	0.500	92.8	72.2	130			
Methylene chloride	4.80	ug/L	0.500	96	65.6	142			
Styrene	4.92	ug/L	0.500	98.4	80	124			
Tetrachloroethene	4.92	ug/L	0.500	98.4	71.7	131			
1,1,1,2-Tetrachloroethane	5.16	ug/L	0.500	103	77.5	124			
1,1,2,2-Tetrachloroethane	4.64	ug/L	0.500	92.8	67.8	137			
Toluene	4.76	ug/L	0.500	95.2	72.1	135			
Trichloroethene	4.52	ug/L	0.500	90.4	69.7	127			
1,1,1-Trichloroethane	4.68	ug/L	0.500	93.6	62.6	120			
1,1,2-Trichloroethane	4.48	ug/L	0.500	89.6	77.8	124			
Trichlorofluoromethane	5.20	ug/L	0.500	104	72.3	120			

Qualifiers:
ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27997
Sample ID: LCS	Laboratory Control Spike								07/09/03 09:55
1,2,3-Trichloropropane	5.12	ug/L	0.500	102	63.8	138			
Vinyl chloride	4.92	ug/L	0.500	98.4	58	140			
m+p-Xylenes	9.32	ug/L	0.500	93.2	67.4	139			
o-Xylene	5.04	ug/L	0.500	101	74.5	135			
Xylenes, Total	14.4	ug/L		95.7	70	137			
Surr: 1,2-Dichloroethane-d4			0.500	96.8	71	139			
Surr: p-Bromofluorobenzene			0.500	93.2	80	127			
Surr: Toluene-d8			0.500	95.6	80	123			
Sample ID: MBLK	Method Blank								07/09/03 11:33
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way

Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03

Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27997
Sample ID: MBLK	Method Blank								07/09/03 11:33
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	97.6	71	139			
Surr: p-Bromofluorobenzene			0.500	97.2	80	127			
Surr: Toluene-d8			0.500	106	80	123			
Sample ID: MBLK	Method Blank								07/09/03 22:19
Benzene	ND	ug/L	0.500						
Bromobenzene	ND	ug/L	0.500						
Bromochloromethane	ND	ug/L	0.500						
Bromodichloromethane	ND	ug/L	0.500						
Bromoform	ND	ug/L	0.500						
Bromomethane	ND	ug/L	0.500						
Carbon tetrachloride	ND	ug/L	0.500						
Chlorobenzene	ND	ug/L	0.500						
Chlorodibromomethane	ND	ug/L	0.500						
Chloroethane	ND	ug/L	0.500						
2-Chloroethyl vinyl ether	ND	ug/L	1.00						
Chloroform	ND	ug/L	0.500						
Chloromethane	ND	ug/L	0.500						
2-Chlorotoluene	ND	ug/L	0.500						
4-Chlorotoluene	ND	ug/L	0.500						
1,2-Dibromoethane	ND	ug/L	0.500						
Dibromomethane	ND	ug/L	0.500						
1,2-Dichlorobenzene	ND	ug/L	0.500						
1,3-Dichlorobenzene	ND	ug/L	0.500						
1,4-Dichlorobenzene	ND	ug/L	0.500						
Dichlorodifluoromethane	ND	ug/L	0.500						
1,1-Dichloroethane	ND	ug/L	0.500						
1,2-Dichloroethane	ND	ug/L	0.500						

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27997
Sample ID: MBLK	Method Blank								07/09/03 22:19
1,1-Dichloroethene	ND	ug/L	0.500						
cis-1,2-Dichloroethene	ND	ug/L	0.500						
trans-1,2-Dichloroethene	ND	ug/L	0.500						
1,2-Dichloropropane	ND	ug/L	0.500						
1,3-Dichloropropane	ND	ug/L	0.500						
2,2-Dichloropropane	ND	ug/L	0.500						
1,1-Dichloropropene	ND	ug/L	0.500						
cis-1,3-Dichloropropene	ND	ug/L	0.500						
trans-1,3-Dichloropropene	ND	ug/L	0.500						
Ethylbenzene	ND	ug/L	0.500						
Methylene chloride	ND	ug/L	0.500						
Styrene	ND	ug/L	0.500						
Tetrachloroethene	ND	ug/L	0.500						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500						
Toluene	ND	ug/L	0.500						
Trichloroethene	ND	ug/L	0.500						
1,1,1-Trichloroethane	ND	ug/L	0.500						
1,1,2-Trichloroethane	ND	ug/L	0.500						
Trichlorofluoromethane	ND	ug/L	0.500						
1,2,3-Trichloropropane	ND	ug/L	0.500						
Vinyl chloride	ND	ug/L	0.500						
m+p-Xylenes	ND	ug/L	0.500						
o-Xylene	ND	ug/L	0.500						
Xylenes, Total	ND	ug/L							
Surr: 1,2-Dichloroethane-d4			0.500	98.4	71	139			
Surr: p-Bromofluorobenzene			0.500	95.2	80	127			
Surr: Toluene-d8			0.500	103	80	123			
Sample ID: B03070216-001A	Sample Matrix Spike								07/10/03 00:00
Benzene	4.80	ug/L	0.500	96	72.6	122			
Bromobenzene	4.68	ug/L	0.500	93.6	74.1	129			
Bromochloromethane	4.32	ug/L	0.500	86.4	66.2	120			
Bromodichloromethane	4.68	ug/L	0.500	93.6	73.5	128			
Bromoform	4.56	ug/L	0.500	91.2	65.5	128			
Bromomethane	6.32	ug/L	0.500	126	51.3	123			S
Carbon tetrachloride	4.44	ug/L	0.500	88.8	61.8	123			
Chlorobenzene	4.64	ug/L	0.500	92.8	79.8	123			
Chlorodibromomethane	4.72	ug/L	0.500	94.4	73.6	125			
Chloroethane	5.16	ug/L	0.500	103	58.8	142			
Chloroform	4.56	ug/L	0.500	91.2	68.2	124			
Chloromethane	5.12	ug/L	0.500	102	52.6	146			
2-Chlorotoluene	4.44	ug/L	0.500	88.8	75.3	131			

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27997
Sample ID: B03070216-001A	Sample Matrix Spike								07/10/03 00:00
4-Chlorotoluene	4.60	ug/L	0.500	92	74.3	129			
1,2-Dibromoethane	4.72	ug/L	0.500	94.4	76.5	124			
Dibromomethane	4.68	ug/L	0.500	93.6	77.4	125			
1,2-Dichlorobenzene	4.52	ug/L	0.500	90.4	74.2	124			
1,3-Dichlorobenzene	4.28	ug/L	0.500	85.6	76.8	122			
1,4-Dichlorobenzene	4.32	ug/L	0.500	86.4	75.9	126			
Dichlorodifluoromethane	4.32	ug/L	0.500	86.4	43.6	128			
1,1-Dichloroethane	4.60	ug/L	0.500	92	74.1	133			
1,2-Dichloroethane	4.68	ug/L	0.500	93.6	75.4	129			
1,1-Dichloroethene	4.32	ug/L	0.500	86.4	74.2	132			
cis-1,2-Dichloroethene	4.48	ug/L	0.500	89.6	81.2	122			
trans-1,2-Dichloroethene	4.52	ug/L	0.500	90.4	78.6	143			
1,2-Dichloropropane	4.72	ug/L	0.500	94.4	74.6	126			
1,3-Dichloropropane	4.60	ug/L	0.500	92	71	136			
2,2-Dichloropropane	3.78	ug/L	0.500	75.7	67.5	142			
1,1-Dichloropropene	4.40	ug/L	0.500	88	70.2	131			
cis-1,3-Dichloropropene	4.60	ug/L	0.500	92	74.3	135			
trans-1,3-Dichloropropene	4.88	ug/L	0.500	97.6	75.5	149			
Ethylbenzene	4.52	ug/L	0.500	90.4	72.2	130			
Methylene chloride	4.56	ug/L	0.500	91.2	65.6	142			
Styrene	4.56	ug/L	0.500	91.2	80	124			
Tetrachloroethene	4.48	ug/L	0.500	89.6	71.7	131			
1,1,1,2-Tetrachloroethane	5.16	ug/L	0.500	103	77.5	124			
1,1,2,2-Tetrachloroethane	4.72	ug/L	0.500	94.4	67.8	137			
Toluene	5.04	ug/L	0.500	101	72.1	135			
Trichloroethene	4.64	ug/L	0.500	92.8	69.7	127			
1,1,1-Trichloroethane	4.48	ug/L	0.500	89.6	62.6	120			
1,1,2-Trichloroethane	4.80	ug/L	0.500	96	77.8	124			
Trichlorofluoromethane	5.16	ug/L	0.500	103	72.3	120			
1,2,3-Trichloropropane	4.40	ug/L	0.500	88	63.8	138			
Vinyl chloride	4.64	ug/L	0.500	92.8	58	140			
m+p-Xylenes	8.76	ug/L	0.500	87.6	67.4	139			
o-Xylene	4.80	ug/L	0.500	96	74.5	135			
Xylenes, Total	13.6	ug/L		90.4	70	137			
Surr: 1,2-Dichloroethane-d4			0.500	98.8	71	139			
Surr: p-Bromofluorobenzene			0.500	94.4	80	127			
Surr: Toluene-d8			0.500	97.6	80	123			
Sample ID: B03070216-001A	Sample Matrix Spike Duplicate								07/10/03 00:33
Benzene	4.88	ug/L	0.500	97.6	72.6	122	1.7	20	
Bromobenzene	4.88	ug/L	0.500	97.6	74.1	129	4.2	20	
Bromochloromethane	4.64	ug/L	0.500	92.8	66.2	120	7.1	20	
Bromodichloromethane	4.84	ug/L	0.500	96.8	73.5	128	3.4	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way
Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03
Work Order: B03070216

Method: E624 — Batch: R27997

Sample ID: B03070216-001A — Sample Matrix Spike Duplicate — 07/10/03 00:33

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Bromoform	5.04	ug/L	0.500	101	65.5	128	10	20	
Bromomethane	6.72	ug/L	0.500	134	51.3	123	6.1	20	S
Carbon tetrachloride	4.48	ug/L	0.500	89.6	61.8	123	0.9	20	
Chlorobenzene	4.88	ug/L	0.500	97.6	79.8	123	5.0	20	
Chlorodibromomethane	4.72	ug/L	0.500	94.4	73.6	125	0	20	
Chloroethane	5.28	ug/L	0.500	106	58.8	142	2.3	20	
Chloroform	4.68	ug/L	0.500	93.6	68.2	124	2.6	20	
Chloromethane	5.28	ug/L	0.500	106	52.6	146	3.1	20	
2-Chlorotoluene	4.64	ug/L	0.500	92.8	75.3	131	4.4	20	
4-Chlorotoluene	5.08	ug/L	0.500	102	74.3	129	9.9	20	
1,2-Dibromoethane	5.08	ug/L	0.500	102	76.5	124	7.3	20	
Dibromomethane	5.00	ug/L	0.500	100	77.4	125	6.6	20	
1,2-Dichlorobenzene	4.84	ug/L	0.500	96.8	74.2	124	6.8	20	
1,3-Dichlorobenzene	4.64	ug/L	0.500	92.8	76.8	122	8.1	20	
1,4-Dichlorobenzene	4.80	ug/L	0.500	96	75.9	126	11	20	
Dichlorodifluoromethane	5.12	ug/L	0.500	102	43.6	128	17	20	
1,1-Dichloroethane	4.88	ug/L	0.500	97.6	74.1	133	5.9	20	
1,2-Dichloroethane	5.04	ug/L	0.500	101	75.4	129	7.4	20	
1,1-Dichloroethene	4.48	ug/L	0.500	89.6	74.2	132	3.6	20	
cis-1,2-Dichloroethene	4.64	ug/L	0.500	92.8	81.2	122	3.5	20	
trans-1,2-Dichloroethene	4.80	ug/L	0.500	96	78.6	143	6.0	20	
1,2-Dichloropropane	5.08	ug/L	0.500	102	74.6	126	7.3	20	
1,3-Dichloropropane	4.88	ug/L	0.500	97.6	71	136	5.9	20	
2,2-Dichloropropane	3.72	ug/L	0.500	74.4	67.5	142	1.7	20	
1,1-Dichloropropene	4.64	ug/L	0.500	92.8	70.2	131	5.3	20	
cis-1,3-Dichloropropene	4.84	ug/L	0.500	96.8	74.3	135	5.1	20	
trans-1,3-Dichloropropene	5.24	ug/L	0.500	105	75.5	149	7.1	20	
Ethylbenzene	4.64	ug/L	0.500	92.8	72.2	130	2.6	20	
Methylene chloride	4.80	ug/L	0.500	96	65.6	142	5.1	20	
Styrene	4.80	ug/L	0.500	96	80	124	5.1	20	
Tetrachloroethene	4.56	ug/L	0.500	91.2	71.7	131	1.8	20	
1,1,1,2-Tetrachloroethane	5.00	ug/L	0.500	100	77.5	124	3.1	20	
1,1,2,2-Tetrachloroethane	5.04	ug/L	0.500	101	67.8	137	6.6	20	
Toluene	5.08	ug/L	0.500	102	72.1	135	0.8	20	
Trichloroethene	4.60	ug/L	0.500	92	69.7	127	0.9	20	
1,1,1-Trichloroethane	4.60	ug/L	0.500	92	62.6	120	2.6	20	
1,1,2-Trichloroethane	4.92	ug/L	0.500	98.4	77.8	124	2.5	20	
Trichlorofluoromethane	4.72	ug/L	0.500	94.4	72.3	120	8.9	20	
1,2,3-Trichloropropane	5.64	ug/L	0.500	113	63.8	138	25	20	R
Vinyl chloride	5.28	ug/L	0.500	106	58	140	13	20	
m+p-Xylenes	9.28	ug/L	0.500	92.8	67.4	139	5.8	20	
o-Xylene	4.76	ug/L	0.500	95.2	74.5	135	0.8	20	
Xylenes, Total	14.0	ug/L		93.6	70	137	3.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
R - RPD outside of recommended recovery limits
S - Spike Recovery outside of recommended recovery limits

QA/QC Summary Report

Client: Kennedy Jenks Consultants-Federal Way

Project: BNSF-Livingston, MT, 026021.16

Report Date: 07/11/03

Work Order: B03070216

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E624									Batch: R27997
Sample ID: B03070216-001A	Sample Matrix Spike Duplicate								07/10/03 00:33
Surr: 1,2-Dichloroethane-d4			0.500	101	71	139			
Surr: p-Bromofluorobenzene			0.500	101	80	127			
Surr: Toluene-d8			0.500	98.4	80	123			

Energy Laboratories Inc

Sample Receipt Checklist

Client Name KNNDY-JNKS-FDRL-WY

Work Order Number B03070216

Checklist completed b ____ 07/03/03
Signature | Date

Date and Time Received: 7/3/2003

Received by rln

Reviewed by ____
Initials | Date

Carrier name UPS ARS Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4 °C On Ice
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? ____ Checked by ____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted ____ Date contacted: ____ Person contacted ____

Contacted by: ____ Regarding ____

Comments:
07/08/03-Run sample MW-10 for VOC's per Sara at Kennedy Jenks.-RN

Corrective Action ____

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 2 of 2

PLEASE PRINT, provide as much information as possible.
Refer to corresponding notes on reverse side.

Company Name: Kennedy/Jenks Consultants	Project Name, PWS #, Permit #, Etc.: BNSF - Livingston, MT
Report Address: 32001 32nd Ave S. Suite 100 Federal Way	Contact Name, Phone, Fax, E-mail: Sarah Krajc- 253 874 0555
	Sampler Name if other than Contact: John Norris
Invoice Address: Same	Invoice Contact & Phone #: Same
Purchase Order #:	ELI Quote #:

Report Required For: POTW/WWTP DW
Other ____

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other ____
EDD/EDT ☐ Format ____

ANALYSIS REQUESTED: VOC 624 — SEE ATTACHED — Normal Turnaround (TAT) — RUSH Turnaround (TAT)

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: with detection Limit of <0.5

Receipt Temp 4-[illegible] °C
Cooler ID(s) B-0622
Custody Seal Y N
Intact Y N
Signature Match Y N

#	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other MATRIX	VOC 624	Comments	Lab ID (LABORATORY USE ONLY)	
1	92-4	6/30/03	5:15	W	3	All voc's	B03070216-011	009
2	MW-11	7/1/03	9:35	W	3	vials have	012	010
3	89-4	7/1/03	10:30	W	3	5 drops of	013	011
4	94-2	7/1/03	12:10	W	3	HCl	014	012
5	94-1	7/1/03	2:15	W	3		015	013
6	92-2	7/1/03	2:55	W	3		016	014
7	MW-10	7/2/03	12:10	W	3	HOLD!!!	017	015
8	trip blank			W	1		018	016
9								
10								

Custody Record MUST be Signed

Relinquished by: Sarah Krajc	Date/Time: 7/2/03 2:00pm	Shipped by:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Shipped by: UPS/ABS Ground	Received by:	Date/Time: 07/03/03 @ 0920

Sample Disposal: Return to client: ____ Lab Disposal: ____

LABORATORY USE ONLY
Sample Type: ____ # of fractions ____

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ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page 1 of 2

PLEASE PRINT, provide as much information as possible.
Refer to corresponding notes on reverse side.

Company Name: Kennedy/Jenks Consultants
Project Name, PWS #, Permit #, Etc.: BNSF - Livingston, MT 026021.16
Report Address: 32001 32nd Ave. S Suite 100 Federal Way, WA 98001
Contact Name, Phone, Fax, E-mail: Sarah Kraja 253 874 0555
Sampler Name if other than Contact: John Norris 253 874 0555
Invoice Address: Same
Invoice Contact & Phone #: Same
Purchase Order #:
ELI Quote #:

Report Required For: POTW/WWTP DW
Other ______

Special Report Formats - ELI must be notified prior to sample submittal for the following:
NELAC ☐ A2LA ☐ Level IV ☐
Other ______
EDD/EDT ☐ Format ______

Notify ELI prior to RUSH sample submittal for additional charges and scheduling

Comments: with detection limit of <0.5

Receipt Temp 4 Ice °C
Cooler ID(s) B-0422
Custody Seal [✓ Y] N
Intact [✓ Y] N
Signature Match [✓ Y] N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	VOC 624	VOC 624 Matrix Spi	~~VOC 624 Matrix~~	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)		Lab ID	
1	11	6/30/03	9:45	W	3						All voc's	B03070216-001	
2	11d	6/30/03	9:45	W	3						vials have	002	
3	11 ms	6/30/03	9:45	W		3					5 drops of	003	001
4	11 msd	6/30/03	9:45	W		3					HCl	004	1
5	LS-11	6/30/03	9:15	W	3							005	003
6	Depuy	6/30/03	11:35	W	3							006	004
7	L-87-8	6/30/03	12:10	W	3							007	005
8	3	6/30/03	2:15	W	3							008	006
9	6	6/30/03	2:50	W	3							009	007
10	89-10	6/30/03	4:20	W	3							010	008

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by: Sarah Kraja Date/Time: 7/2/03 2:00pm Shipped by:
Received by: Date/Time:
Relinquished by: Date/Time: Shipped by: UPS ALS Ground
Received by: Date/Time: 07/03/03 @ 0900

Sample Disposal: Return to client: ______ Lab Disposal: ______

LABORATORY USE ONLY
Sample Type: ______ # of fractions ______

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nca
www.ncalabs.com

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

04 December 2003

Sarah Kraja
ennedy/Jenks Consultants
32001 32nd Ave S Ste 100
ederal Way, WA/USA 98001

RE: BNSF-Livingston, MT

nclosed are the results of analyses for samples received by the laboratory on 11/10/03 09:25. If you have any questions concerning this report, please feel free to contact me.

incerely,

John M. Clawson

ohn Clawson
Project Manager

RECEIVED
DEC 12 2003
K/J Federal Way

www.ncalabs.com

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541.383.9310 fax 541.382.7588
Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

CASE NARRATIVE
For B3K0273

Client:	Kennedy/Jenks Consultants
Project Manager:	Sarah Kraja
Project Name:	BNSF – Livingston, MT
Project Number:	026021.16

1.0 DESCRIPTION OF CASE

Twelve water samples were received for analysis of Purgeable Organic Compounds by EPA Method 524.2, and Volatile Organic Compounds by EPA Method 8260B.

2.0 COMMENTS ON SAMPLE RECEIPT

Samples were received on Nov. 11th, 2003. The temperature of the samples at time of receipt was 4.7 ° C

3.0 PREPARATION AND ANALYSIS

Purgeable Organic Compounds by EPA Method 524.2

- No anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Volatile Organic Compounds by EPA Method 8260B

- No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

John Clawson

John Clawson
Project Manager
North Creek Analytical

www.ncalabs.com

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503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382 7588
Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
94-2	B3K0273-01	Water	11/06/03 09:50	11/10/03 09:25
90-3	B3K0273-02	Water	11/06/03 13:50	11/10/03 09:25
90-3d	B3K0273-03	Water	11/06/03 13:51	11/10/03 09:25
94-1	B3K0273-04	Water	11/06/03 15:35	11/10/03 09:25
92-1	B3K0273-05	Water	11/07/03 08:10	11/10/03 09:25
L-87-5	B3K0273-06	Water	11/07/03 09:05	11/10/03 09:25
89-3	B3K0273-07	Water	11/07/03 10:26	11/10/03 09:25
L-87-2	B3K0273-08	Water	11/07/03 11:45	11/10/03 09:25
89-4	B3K0273-09	Water	11/07/03 13:25	11/10/03 09:25
L-87-8	B3K0273-10	Water	11/07/03 14:20	11/10/03 09:25
L-88-10	B3K0273-11	Water	11/07/03 15:00	11/10/03 09:25
92-2	B3K0273-12	Water	11/07/03 15:55	11/10/03 09:25

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2
North Creek Analytical - Bothell

94-2 (B3K0273-01) Water Sampled: 11/06/03 09:50 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0520	0.500	ug/l	1	3K17038	11/14/03	11/15/03	EPA 524.2	
Bromobenzene	ND	0.0530	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.0680	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0450	0.500	"	"	"	"	"	"	
Bromoform	ND	0.0560	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.0700	0.500	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0580	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.0640	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.0870	0.500	"	"	"	"	"	"	
Chloroform	ND	0.0610	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.140	0.500	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0830	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0720	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0210	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.0640	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.0270	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0410	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0440	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0230	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0880	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0470	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0680	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0530	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0700	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0500	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0280	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0410	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0970	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0600	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.0570	0.500	"	"	"	"	"	"	
Methylene chloride	ND	0.0270	0.500	"	"	"	"	"	"	
Naphthalene	ND	0.0580	0.500	"	"	"	"	"	"	
Styrene	ND	0.0160	0.500	"	"	"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants 32001 32nd Ave S Ste 100 Federal Way, WA/USA 98001	Project: BNSF-Livingston, MT Project Number: 026021.16 Project Manager: Sarah Kraja	Reported: 12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2
North Creek Analytical - Bothell

4-2 (B3K0273-01) Water Sampled: 11/06/03 09:50 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	ND	0.0550	0.500	ug/l	1	3K17038	11/14/03	11/15/03	EPA 524.2	
,1,2,2-Tetrachloroethane	ND	0.0560	0.500	"	"	"	"	"	"	
etrachloroethene	ND	0.0710	0.500	"	"	"	"	"	"	
Toluene	ND	0.0500	0.500	"	"	"	"	"	"	
,1,1-Trichloroethane	ND	0.0890	0.500	"	"	"	"	"	"	
,1,2-Trichloroethane	ND	0.0550	0.500	"	"	"	"	"	"	
richloroethene	ND	0.0400	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0630	0.500	"	"	"	"	"	"	
,2,3-Trichloropropane	ND	0.114	0.500	"	"	"	"	"	"	
inyl chloride	ND	0.0710	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	0.0800	0.500	"	"	"	"	"	"	
-Xylene	ND	0.00900	0.500	"	"	"	"	"	"	
urrogate: 1,2-DCA-d4	*101 %*		*80-120*			"	"	"	"	
Surrogate: Toluene-d8	*99.2 %*		*80-120*			"	"	"	"	
urrogate: 4-BFB	*103 %*		*80-120*			"	"	"	"	

4-1 (B3K0273-04) Water Sampled: 11/06/03 15:35 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0520	0.500	ug/l	1	3K17038	11/14/03	11/15/03	EPA 524.2	
romobenzene	ND	0.0530	0.500	"	"	"	"	"	"	
romochloromethane	ND	0.0680	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0450	0.500	"	"	"	"	"	"	
Bromoform	ND	0.0560	0.500	"	"	"	"	"	"	
romomethane	ND	0.0700	0.500	"	"	"	"	"	"	
arbon tetrachloride	ND	0.0580	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.0640	0.500	"	"	"	"	"	"	
hloroethane	ND	0.0870	0.500	"	"	"	"	"	"	
hloroform	ND	0.0610	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.140	0.500	"	"	"	"	"	"	
-Chlorotoluene	ND	0.0830	0.500	"	"	"	"	"	"	
-Chlorotoluene	ND	0.0720	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0210	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.0640	0.500	"	"	"	"	"	"	
ibromomethane	ND	0.0270	0.500	"	"	"	"	"	"	
,2-Dichlorobenzene	ND	0.0410	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0440	0.500	"	"	"	"	"	"	
,4-Dichlorobenzene	ND	0.0230	0.500	"	"	"	"	"	"	
ichlorodifluoromethane	ND	0.0880	0.500	"	"	"	"	"	"	

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
94-1 (B3K0273-04) Water	**Sampled: 11/06/03 15:35**		**Received: 11/10/03 09:25**							
1,1-Dichloroethane	ND	0.0470	0.500	ug/l	1	3K17038	11/14/03	11/15/03	EPA 524.2	
1,2-Dichloroethane	ND	0.0680	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0530	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0700	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0500	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0280	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0410	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0970	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0600	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.0570	0.500	"	"	"	"	"	"	
Methylene chloride	ND	0.0270	0.500	"	"	"	"	"	"	
Naphthalene	ND	0.0580	0.500	"	"	"	"	"	"	
Styrene	ND	0.0160	0.500	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0550	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0560	0.500	"	"	"	"	"	"	
Tetrachloroethene	**1.49**	0.0710	0.500	"	"	"	"	"	"	
Toluene	ND	0.0500	0.500	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0890	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0550	0.500	"	"	"	"	"	"	
Trichloroethene	ND	0.0400	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0630	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.114	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.0710	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	0.0800	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.00900	0.500	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*102 %*		*80-120*			"	"	"	"	
Surrogate: Toluene-d8	*104 %*		*80-120*			"	"	"	"	
Surrogate: 4-BFB	*95.8 %*		*80-120*			"	"	"	"	

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	Reported:
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2
North Creek Analytical - Bothell

L-87-8 (B3K0273-10) Water Sampled: 11/07/03 14:20 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0520	0.500	ug/l	1	3K19009	11/18/03	11/18/03	EPA 524.2	
Bromobenzene	ND	0.0530	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.0680	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0450	0.500	"	"	"	"	"	"	
Bromoform	ND	0.0560	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.0700	0.500	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0580	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.0640	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.0870	0.500	"	"	"	"	"	"	
Chloroform	ND	0.0610	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.140	0.500	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0830	0.500	"	"	"	"	"	"	
-Chlorotoluene	ND	0.0720	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0210	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.0640	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.0270	0.500	"	"	"	"	"	"	
,2-Dichlorobenzene	ND	0.0410	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0440	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0230	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0880	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0470	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0680	0.500	"	"	"	"	"	"	
,1-Dichloroethene	ND	0.0530	0.500	"	"	"	"	"	"	
is-1,2-Dichloroethene	**1.09**	0.0700	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0500	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0280	0.500	"	"	"	"	"	"	
,3-Dichloropropane	ND	0.0410	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0970	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
is-1,3-Dichloropropene	ND	0.0430	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0600	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.0570	0.500	"	"	"	"	"	"	
Methylene chloride	ND	0.0270	0.500	"	"	"	"	"	"	
Naphthalene	ND	0.0580	0.500	"	"	"	"	"	"	
Styrene	ND	0.0160	0.500	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0550	0.500	"	"	"	"	"	"	
,1,2,2-Tetrachloroethane	ND	0.0560	0.500	"	"	"	"	"	"	

North Creek Analytical - Bothell

John M. Clawson

John Clawson, Project Manager

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Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L-87-8 (B3K0273-10) Water	**Sampled: 11/07/03 14:20**		**Received: 11/10/03 09:25**							
Tetrachloroethene	**0.750**	0.0710	0.500	ug/l	1	3K19009	11/18/03	11/18/03	EPA 524.2	
Toluene	ND	0.0500	0.500	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0890	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0550	0.500	"	"	"	"	"	"	
Trichloroethene	**3.30**	0.0400	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0630	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.114	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.0710	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	0.0800	0.500	"	"	"	"	"	"	
o-Xylene	**0.970**	0.00900	0.500	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*110 %*		*80-120*			"	"	"	"	
Surrogate: Toluene-d8	*92.2 %*		*80-120*			"	"	"	"	
Surrogate: 4-BFB	*97.8 %*		*80-120*			"	"	"	"	

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	Reported:
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

0-3 (B3K0273-02) Water Sampled: 11/06/03 13:50 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
Benzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
Bromoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	
,3-Dichlorobenzene	ND	0.273	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
is-1,2-Dichloroethene	**1.05**	0.229	0.500	"	"	"	"	"	"	
rans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
rans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

90-3 (B3K0273-02) Water Sampled: 11/06/03 13:50 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Styrene	ND	0.238	0.500	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**7.30**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**2.10**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*98.0 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*104 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*103 %*		*70-130*			"	"	"	"	

90-3d (B3K0273-03) Water Sampled: 11/06/03 13:51 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
Benzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
Bromoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

0-3d (B3K0273-03) Water Sampled: 11/06/03 13:51 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,3-Dichlorobenzene	ND	0.273	0.500	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**1.04**	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
is-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	
tyrene	ND	0.238	0.500	"	"	"	"	"	"	
,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**6.90**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**2.23**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*100 %*		*70-130*			"	"	"	"	
urrogate: Toluene-d8	*108 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*96.0 %*		*70-130*			"	"	"	"	

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

92-1 (B3K0273-05) Water Sampled: 11/07/03 08:10 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	1.04	4.00	ug/l	4	3K13042	11/13/03	11/13/03	EPA 8260B	
Benzene	ND	1.12	2.00	"	"	"	"	"	"	
Bromobenzene	ND	0.812	2.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.05	2.00	"	"	"	"	"	"	
Bromodichloromethane	ND	0.948	2.00	"	"	"	"	"	"	
Bromoform	ND	1.22	2.00	"	"	"	"	"	"	
Bromomethane	ND	1.85	2.00	"	"	"	"	"	"	
2-Butanone	ND	11.2	40.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.744	2.00	"	"	"	"	"	"	
Chlorobenzene	ND	0.544	2.00	"	"	"	"	"	"	
Chloroethane	ND	0.880	2.00	"	"	"	"	"	"	
Chloroform	ND	0.848	2.00	"	"	"	"	"	"	
Chloromethane	ND	1.56	4.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.540	2.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.71	2.00	"	"	"	"	"	"	
Dibromochloromethane	ND	0.432	2.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.640	2.00	"	"	"	"	"	"	
Dibromomethane	ND	0.976	2.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.628	2.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.09	2.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.436	2.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.33	2.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.868	2.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.928	2.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.828	2.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**2.60**	0.916	2.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.976	2.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.936	2.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.652	2.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.756	2.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.992	2.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.31	2.00	"	"	"	"	"	"	
2-Hexanone	ND	8.69	40.0	"	"	"	"	"	"	
Methylene chloride	ND	1.22	10.0	"	"	"	"	"	"	
Naphthalene	ND	3.66	4.00	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
2001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
ederal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
-1 (B3K0273-05) Water Sampled: 11/07/03 08:10 Received: 11/10/03 09:25										
Styrene	ND	0.952	2.00	ug/l	4	3K13042	11/13/03	11/13/03	EPA 8260B	
,1,2-Tetrachloroethane	ND	0.476	2.00	"	"	"	"	"	"	
,2,2-Tetrachloroethane	ND	3.33	4.00	"	"	"	"	"	"	
Tetrachloroethene	**77.4**	0.864	2.00	"	"	"	"	"	"	
luene	ND	3.93	4.00	"	"	"	"	"	"	
,1-Trichloroethane	ND	0.832	2.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.572	2.00	"	"	"	"	"	"	
Trichloroethene	ND	1.06	2.00	"	"	"	"	"	"	
ichlorofluoromethane	ND	0.832	2.00	"	"	"	"	"	"	
,2,3-Trichloropropane	ND	0.876	2.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.08	2.00	"	"	"	"	"	"	
Xylene	ND	1.85	2.00	"	"	"	"	"	"	
p-Xylene	ND	6.12	8.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*106 %*		*70-130*			"	"	"	"	
rrogate: Toluene-d8	*107 %*		*70-130*			"	"	"	"	
rrogate: 4-BFB	*101 %*		*70-130*			"	"	"	"	
92-1 (B3K0273-05RE1) Water Sampled: 11/07/03 08:10 Received: 11/10/03 09:25										
Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
nzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
omochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
omodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
Bromoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
Butanone	ND	2.80	10.0	"	"	"	"	"	"	
rbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
loroethane	ND	0.220	0.500	"	"	"	"	"	"	
loroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
bromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
bromomethane	ND	0.244	0.500	"	"	"	"	"	"	
2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

ohn Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

92-1 (B3K0273-05RE1) Water Sampled: 11/07/03 08:10 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,3-Dichlorobenzene	ND	0.273	0.500	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**2.90**	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	
Styrene	ND	0.238	0.500	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**72.2**	0.216	0.500	"	"	"	"	"	"	E
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	ND	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*96.0 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*102 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*98.0 %*		*70-130*			"	"	"	"	

John M. Clawson

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

-87-5 (B3K0273-06) Water Sampled: 11/07/03 09:05 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
enzene	ND	0.281	0.500	"	"	"	"	"	"	
romobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
romoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
arbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
hlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
hloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
ibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	
,3-Dichlorobenzene	ND	0.273	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
is-1,2-Dichloroethene	**0.900**	0.229	0.500	"	"	"	"	"	"	
ans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
ans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
thylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
aphthalene	ND	0.914	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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John M. Clawson

ohn Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L-87-5 (B3K0273-06) Water Sampled: 11/07/03 09:05 Received: 11/10/03 09:25										
Styrene	ND	0.238	0.500	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**27.3**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**1.87**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*97.0 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*100 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*98.0 %*		*70-130*			"	"	"	"	
89-3 (B3K0273-07) Water Sampled: 11/07/03 10:26 Received: 11/10/03 09:25										
2-Chloroethylvinyl ether	ND	1.04	4.00	ug/l	4	3K13042	11/13/03	11/13/03	EPA 8260B	
Benzene	ND	1.12	2.00	"	"	"	"	"	"	
Bromobenzene	ND	0.812	2.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.05	2.00	"	"	"	"	"	"	
Bromodichloromethane	ND	0.948	2.00	"	"	"	"	"	"	
Bromoform	ND	1.22	2.00	"	"	"	"	"	"	
Bromomethane	ND	1.85	2.00	"	"	"	"	"	"	
2-Butanone	ND	11.2	40.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.744	2.00	"	"	"	"	"	"	
Chlorobenzene	ND	0.544	2.00	"	"	"	"	"	"	
Chloroethane	ND	0.880	2.00	"	"	"	"	"	"	
Chloroform	ND	0.848	2.00	"	"	"	"	"	"	
Chloromethane	ND	1.56	4.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.540	2.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.71	2.00	"	"	"	"	"	"	
Dibromochloromethane	ND	0.432	2.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.640	2.00	"	"	"	"	"	"	
Dibromomethane	ND	0.976	2.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.628	2.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

9-3 (B3K0273-07) Water Sampled: 11/07/03 10:26 Received: 11/10/03 09:25

nalyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,3-Dichlorobenzene	ND	1.09	2.00	ug/l	4	3K13042	11/13/03	11/13/03	EPA 8260B	
4-Dichlorobenzene	ND	0.436	2.00	"	"	"	"	"	"	
ichlorodifluoromethane	ND	1.33	2.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.868	2.00	"	"	"	"	"	"	
2-Dichloroethane	ND	0.928	2.00	"	"	"	"	"	"	
1-Dichloroethene	ND	0.828	2.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.916	2.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.976	2.00	"	"	"	"	"	"	
2-Dichloropropane	ND	0.936	2.00	"	"	"	"	"	"	
,3-Dichloropropane	ND	0.652	2.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.756	2.00	"	"	"	"	"	"	
1-Dichloropropene	ND	0.992	2.00	"	"	"	"	"	"	
s-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.31	2.00	"	"	"	"	"	"	
-Hexanone	ND	8.69	40.0	"	"	"	"	"	"	
Methylene chloride	ND	1.22	10.0	"	"	"	"	"	"	
Naphthalene	ND	3.66	4.00	"	"	"	"	"	"	
tyrene	ND	0.952	2.00	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	0.476	2.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.33	4.00	"	"	"	"	"	"	
Tetrachloroethene	**113**	0.864	2.00	"	"	"	"	"	"	
oluene	ND	3.93	4.00	"	"	"	"	"	"	
,1,1-Trichloroethane	ND	0.832	2.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.572	2.00	"	"	"	"	"	"	
richloroethene	**1.40**	1.06	2.00	"	"	"	"	"	"	J
richlorofluoromethane	ND	0.832	2.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.876	2.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.08	2.00	"	"	"	"	"	"	
-Xylene	ND	1.85	2.00	"	"	"	"	"	"	
m,p-Xylene	ND	6.12	8.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*107 %*		*70-130*			"	"	"	"	
urrogate: Toluene-d8	*108 %*		*70-130*			"	"	"	"	
urrogate: 4-BFB	*98.5 %*		*70-130*			"	"	"	"	

North Creek Analytical - Bothell

John M. Clawson

ohn Clawson, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

89-3 (B3K0273-07RE1) Water Sampled: 11/07/03 10:26 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
Benzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
Bromoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.273	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
-3 (B3K0273-07RE1) Water	**Sampled: 11/07/03 10:26**		**Received: 11/10/03 09:25**							
Styrene	ND	0.238	0.500	ug/l	1	3K13042	11/13/03	11/13/03	EPA 8260B	
1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**103**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**1.72**	0.264	0.500	"	"	"	"	"	"	
richlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*96.5 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*102 %*		*70-130*			"	"	"	"	
urrogate: 4-BFB	*99.0 %*		*70-130*			"	"	"	"	
L-87-2 (B3K0273-08) Water	**Sampled: 11/07/03 11:45**		**Received: 11/10/03 09:25**							
-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K19042	11/19/03	11/19/03	EPA 8260B	
enzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
romodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
romoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
Butanone	ND	2.80	10.0	"	"	"	"	"	"	
arbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	**22.4**	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
hloroform	ND	0.212	0.500	"	"	"	"	"	"	
hloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	**44.0**	0.135	0.500	"	"	"	"	"	"	
Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
ibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
2-Dichlorobenzene	**1.54**	0.157	0.500	"	"	"	"	"	"	

John M. Clawson

hn Clawson, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L-87-2 (B3K0273-08) Water	**Sampled: 11/07/03 11:45**		**Received: 11/10/03 09:25**							
1,3-Dichlorobenzene	**0.610**	0.273	0.500	ug/l	1	3K19042	11/19/03	11/19/03	EPA 8260B	
1,4-Dichlorobenzene	**4.06**	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**14.8**	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	**0.660**	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	
Styrene	ND	0.238	0.500	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**0.630**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	**12.2**	0.270	0.500	"	"	"	"	"	"	
o-Xylene	**1.55**	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*100 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*102 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*96.5 %*		*70-130*			"	"	"	"	

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
9-4 (B3K0273-09) Water Sampled: 11/07/03 13:25 Received: 11/10/03 09:25										
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
enzene	ND	0.281	0.500	"	"	"	"	"	"	
romobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
romoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
arbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
hlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
hloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
ibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.273	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
is-1,2-Dichloroethene	**8.53**	0.229	0.500	"	"	"	"	"	"	
ans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
ans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
thylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
aphthalene	ND	0.914	1.00	"	"	"	"	"	"	

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
89-4 (B3K0273-09) Water Sampled: 11/07/03 13:25 Received: 11/10/03 09:25										
Styrene	ND	0.238	0.500	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**64.6**	0.216	0.500	"	"	"	"	"	"	E
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**1.26**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*113 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*94.0 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*98.0 %*		*70-130*			"	"	"	"	
89-4 (B3K0273-09RE1) Water Sampled: 11/07/03 13:25 Received: 11/10/03 09:25										
2-Chloroethylvinyl ether	ND	1.04	4.00	ug/l	4	3K19039	11/17/03	11/17/03	EPA 8260B	
Benzene	ND	1.12	2.00	"	"	"	"	"	"	
Bromobenzene	ND	0.812	2.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.05	2.00	"	"	"	"	"	"	
Bromodichloromethane	ND	0.948	2.00	"	"	"	"	"	"	
Bromoform	ND	1.22	2.00	"	"	"	"	"	"	
Bromomethane	ND	1.85	2.00	"	"	"	"	"	"	
2-Butanone	ND	11.2	40.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.744	2.00	"	"	"	"	"	"	
Chlorobenzene	ND	0.544	2.00	"	"	"	"	"	"	
Chloroethane	ND	0.880	2.00	"	"	"	"	"	"	
Chloroform	ND	0.848	2.00	"	"	"	"	"	"	
Chloromethane	ND	1.56	4.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.540	2.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.71	2.00	"	"	"	"	"	"	
Dibromochloromethane	ND	0.432	2.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.640	2.00	"	"	"	"	"	"	
Dibromomethane	ND	0.976	2.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.628	2.00	"	"	"	"	"	"	

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Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
-4 (B3K0273-09RE1) Water	**Sampled: 11/07/03 13:25**		**Received: 11/10/03 09:25**							
1 3-Dichlorobenzene	ND	1.09	2.00	ug/l	4	3K19039	11/17/03	11/17/03	EPA 8260B	
4-Dichlorobenzene	ND	0.436	2.00	"	"	"	"	"	"	
ichlorodifluoromethane	ND	1.33	2.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.868	2.00	"	"	"	"	"	"	
2-Dichloroethane	ND	0.928	2.00	"	"	"	"	"	"	
1-Dichloroethene	ND	0.828	2.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**8.52**	0.916	2.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.976	2.00	"	"	"	"	"	"	
2-Dichloropropane	ND	0.936	2.00	"	"	"	"	"	"	
3-Dichloropropane	ND	0.652	2.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.756	2.00	"	"	"	"	"	"	
1-Dichloropropene	ND	0.992	2.00	"	"	"	"	"	"	
s-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.576	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.31	2.00	"	"	"	"	"	"	
Hexanone	ND	8.69	40.0	"	"	"	"	"	"	
ethylene chloride	ND	1.22	10.0	"	"	"	"	"	"	
Naphthalene	ND	3.66	4.00	"	"	"	"	"	"	
yrene	ND	0.952	2.00	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	0.476	2.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.33	4.00	"	"	"	"	"	"	
Tetrachloroethene	**68.8**	0.864	2.00	"	"	"	"	"	"	
luene	ND	3.93	4.00	"	"	"	"	"	"	
1,1-Trichloroethane	ND	0.832	2.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.572	2.00	"	"	"	"	"	"	
richloroethene	**1.40**	1.06	2.00	"	"	"	"	"	"	J
richlorofluoromethane	ND	0.832	2.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.876	2.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.08	2.00	"	"	"	"	"	"	
Xylene	ND	1.85	2.00	"	"	"	"	"	"	
,p-Xylene	ND	6.12	8.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*110 %*		*70-130*			"	"	"	"	
rrogate: Toluene-d8	*94.0 %*		*70-130*			"	"	"	"	
rrogate: 4-BFB	*98.5 %*		*70-130*			"	"	"	"	

North Creek Analytical - Bothell

John M. Clawson

John Clawson, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

L-88-10 (B3K0273-11) Water Sampled: 11/07/03 15:00 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
Benzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
Bromodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
Bromoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
2-Butanone	ND	2.80	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	**5.23**	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
Chloroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	**0.630**	0.135	0.500	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.273	0.500	"	"	"	"	"	"	
1,4-Dichlorobenzene	**1.07**	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**12.6**	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

-88-10 (B3K0273-11) Water Sampled: 11/07/03 15:00 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Styrene	ND	0.238	0.500	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**21.4**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**5.83**	0.264	0.500	"	"	"	"	"	"	
richlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	**1.14**	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*110 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*94.0 %*		*70-130*			"	"	"	"	
urrogate: 4-BFB	*99.0 %*		*70-130*			"	"	"	"	

92-2 (B3K0273-12) Water Sampled: 11/07/03 15:55 Received: 11/10/03 09:25

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloroethylvinyl ether	ND	0.259	1.00	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
enzene	ND	0.281	0.500	"	"	"	"	"	"	
Bromobenzene	ND	0.203	0.500	"	"	"	"	"	"	
Bromochloromethane	ND	0.262	0.500	"	"	"	"	"	"	
romodichloromethane	ND	0.237	0.500	"	"	"	"	"	"	
romoform	ND	0.304	0.500	"	"	"	"	"	"	
Bromomethane	ND	0.463	0.500	"	"	"	"	"	"	
Butanone	ND	2.80	10.0	"	"	"	"	"	"	
arbon tetrachloride	ND	0.186	0.500	"	"	"	"	"	"	
Chlorobenzene	ND	0.136	0.500	"	"	"	"	"	"	
Chloroethane	ND	0.220	0.500	"	"	"	"	"	"	
hloroform	ND	0.212	0.500	"	"	"	"	"	"	
Chloromethane	ND	0.389	1.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.135	0.500	"	"	"	"	"	"	
Chlorotoluene	ND	0.428	0.500	"	"	"	"	"	"	
ibromochloromethane	ND	0.108	0.500	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.160	0.500	"	"	"	"	"	"	
Dibromomethane	ND	0.244	0.500	"	"	"	"	"	"	
2-Dichlorobenzene	ND	0.157	0.500	"	"	"	"	"	"	

North Creek Analytical - Bothell

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John M. Clawson

hn Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
92-2 (B3K0273-12) Water Sampled: 11/07/03 15:55 Received: 11/10/03 09:25										
1,3-Dichlorobenzene	ND	0.273	0.500	ug/l	1	3K19039	11/17/03	11/17/03	EPA 8260B	
1,4-Dichlorobenzene	ND	0.109	0.500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.332	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.217	0.500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.232	0.500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.207	0.500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.229	0.500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.244	0.500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.234	0.500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.163	0.500	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.189	0.500	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.248	0.500	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.144	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.328	0.500	"	"	"	"	"	"	
2-Hexanone	ND	2.17	10.0	"	"	"	"	"	"	
Methylene chloride	ND	0.305	2.50	"	"	"	"	"	"	
Naphthalene	ND	0.914	1.00	"	"	"	"	"	"	
Styrene	ND	0.238	0.500	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"	"	"	"	"	"	
Tetrachloroethene	**10.3**	0.216	0.500	"	"	"	"	"	"	
Toluene	ND	0.982	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.208	0.500	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.143	0.500	"	"	"	"	"	"	
Trichloroethene	**0.870**	0.264	0.500	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.208	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.219	0.500	"	"	"	"	"	"	
Vinyl chloride	ND	0.270	0.500	"	"	"	"	"	"	
o-Xylene	ND	0.463	0.500	"	"	"	"	"	"	
m,p-Xylene	ND	1.53	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	*114 %*		*70-130*			"	"	"	"	
Surrogate: Toluene-d8	*94.5 %*		*70-130*			"	"	"	"	
Surrogate: 4-BFB	*98.5 %*		*70-130*			"	"	"	"	

North Creek Analytical - Bothell

John M. Clawson

John Clawson, Project Manager

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Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

atch 3K17038: Prepared 11/14/03 Using EPA 5030B

Blank (3K17038-BLK1)

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
nzene	ND	0.0520	0.500	ug/l							
omobenzene	ND	0.0530	0.500	"							
Bromochloromethane	ND	0.0680	0.500	"							
omodichloromethane	ND	0.0450	0.500	"							
omoform	ND	0.0560	0.500	"							
Bromomethane	ND	0.0700	0.500	"							
Butylbenzene	ND	0.0560	0.500	"							
c-Butylbenzene	ND	0.0180	0.500	"							
tert-Butylbenzene	ND	0.0470	0.500	"							
rbon tetrachloride	ND	0.0580	0.500	"							
lorobenzene	ND	0.0640	0.500	"							
Chloroethane	ND	0.0870	0.500	"							
loroform	ND	0.0610	0.500	"							
loromethane	ND	0.140	0.500	"							
2-Chlorotoluene	ND	0.0830	0.500	"							
Chlorotoluene	ND	0.0720	0.500	"							
bromochloromethane	ND	0.0210	0.500	"							
1,2-Dibromo-3-chloropropane	ND	0.176	0.500	"							
-Dibromoethane	ND	0.0640	0.500	"							
bromomethane	ND	0.0270	0.500	"							
1,2-Dichlorobenzene	ND	0.0410	0.500	"							
-Dichlorobenzene	ND	0.0440	0.500	"							
-Dichlorobenzene	ND	0.0230	0.500	"							
Dichlorodifluoromethane	ND	0.0880	0.500	"							
-Dichloroethane	ND	0.0470	0.500	"							
-Dichloroethane	ND	0.0680	0.500	"							
1,1-Dichloroethene	ND	0.0530	0.500	"							
-1,2-Dichloroethene	ND	0.0700	0.500	"							
ns-1,2-Dichloroethene	ND	0.0500	0.500	"							

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K17038: Prepared 11/14/03 Using EPA 5030B											
Blank (3K17038-BLK1)											
1,2-Dichloropropane	ND	0.0280	0.500	ug/l							
1,3-Dichloropropane	ND	0.0410	0.500	"							
2,2-Dichloropropane	ND	0.0970	0.500	"							
1,1-Dichloropropene	ND	0.0430	0.500	"							
cis-1,3-Dichloropropene	ND	0.0430	0.500	"							
trans-1,3-Dichloropropene	ND	0.0600	0.500	"							
Ethylbenzene	ND	0.0570	0.500	"							
Hexachlorobutadiene	ND	0.0700	0.500	"							
Isopropylbenzene	ND	0.0210	0.500	"							
p-Isopropyltoluene	ND	0.0440	0.500	"							
Methylene chloride	ND	0.0270	0.500	"							
Naphthalene	ND	0.0580	0.500	"							
n-Propylbenzene	ND	0.0480	0.500	"							
Styrene	ND	0.0160	0.500	"							
1,1,1,2-Tetrachloroethane	ND	0.0550	0.500	"							
1,1,2,2-Tetrachloroethane	ND	0.0560	0.500	"							
Tetrachloroethene	ND	0.0710	0.500	"							
Toluene	ND	0.0500	0.500	"							
1,2,3-Trichlorobenzene	ND	0.0700	0.500	"							
1,2,4-Trichlorobenzene	ND	0.0500	0.500	"							
1,1,1-Trichloroethane	ND	0.0890	0.500	"							
1,1,2-Trichloroethane	ND	0.0550	0.500	"							
Trichloroethene	ND	0.0400	0.500	"							
Trichlorofluoromethane	ND	0.0630	0.500	"							
1,2,3-Trichloropropane	ND	0.114	0.500	"							
1,2,4-Trimethylbenzene	ND	0.0460	0.500	"							
1,3,5-Trimethylbenzene	ND	0.0120	0.500	"							
Vinyl chloride	ND	0.0710	0.500	"							
m,p-Xylene	ND	0.0800	0.500	"							
o-Xylene	ND	0.00900	0.500	"							
Surrogate: 1,2-DCA-d4	*3.94*			*"*	*4.00*		*98.5*	*80-120*			

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K17038: Prepared 11/14/03 Using EPA 5030B											
lank (3K17038-BLK1)											
urrogate: Toluene-d8	*4.00*			*ug/l*	*4.00*		*100*	*80-120*			
Surrogate: 4-BFB	*4.04*			*"*	*4.00*		*101*	*80-120*			
CS (3K17038-BS1)											
Benzene	1.95	0.0520	0.500	ug/l	2.00		97.5	80-120			
Bromobenzene	1.99	0.0530	0.500	"	2.00		99.5	80-120			
romochloromethane	1.87	0.0680	0.500	"	2.00		93.5	80-120			
Bromodichloromethane	1.97	0.0450	0.500	"	2.00		98.5	80-120			
Bromoform	1.82	0.0560	0.500	"	2.00		91.0	80-120			
romomethane	2.09	0.0700	0.500	"	2.00		104	80-120			
n-Butylbenzene	2.08	0.0560	0.500	"	2.00		104	80-120			
sec-Butylbenzene	2.10	0.0180	0.500	"	2.00		105	80-120			
ert-Butylbenzene	2.19	0.0470	0.500	"	2.00		110	80-120			
Carbon tetrachloride	2.00	0.0580	0.500	"	2.00		100	80-120			
Chlorobenzene	1.99	0.0640	0.500	"	2.00		99.5	80-120			
hloroethane	1.76	0.0870	0.500	"	2.00		88.0	80-120			
Chloroform	1.94	0.0610	0.500	"	2.00		97.0	80-120			
Chloromethane	1.90	0.140	0.500	"	2.00		95.0	80-120			
-Chlorotoluene	2.08	0.0830	0.500	"	2.00		104	80-120			
4-Chlorotoluene	2.09	0.0720	0.500	"	2.00		104	80-120			
Dibromochloromethane	2.02	0.0210	0.500	"	2.00		101	80-120			
,2-Dibromo-3-chloropropane	1.62	0.176	0.500	"	2.00		81.0	80-120			
1,2-Dibromoethane	1.97	0.0640	0.500	"	2.00		98.5	80-120			
Dibromomethane	1.99	0.0270	0.500	"	2.00		99.5	80-120			
,2-Dichlorobenzene	1.91	0.0410	0.500	"	2.00		95.5	80-120			
1,3-Dichlorobenzene	1.99	0.0440	0.500	"	2.00		99.5	80-120			
1,4-Dichlorobenzene	1.93	0.0230	0.500	"	2.00		96.5	80-120			
ichlorodifluoromethane	1.93	0.0880	0.500	"	2.00		96.5	80-120			
1,1-Dichloroethane	1.94	0.0470	0.500	"	2.00		97.0	80-120			
,2-Dichloroethane	2.02	0.0680	0.500	"	2.00		101	80-120			
,1-Dichloroethene	1.97	0.0530	0.500	"	2.00		98.5	80-120			

North Creek Analytical - Bothell

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John M. Clawson

ohn Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K17038: Prepared 11/14/03 Using EPA 5030B											
LCS (3K17038-BS1)											
cis-1,2-Dichloroethene	2.02	0.0700	0.500	ug/l	2.00		101	80-120			
trans-1,2-Dichloroethene	1.99	0.0500	0.500	"	2.00		99.5	80-120			
1,2-Dichloropropane	1.97	0.0280	0.500	"	2.00		98.5	80-120			
1,3-Dichloropropane	1.96	0.0410	0.500	"	2.00		98.0	80-120			
2,2-Dichloropropane	1.87	0.0970	0.500	"	2.00		93.5	80-120			
1,1-Dichloropropene	2.01	0.0430	0.500	"	2.00		100	80-120			
cis-1,3-Dichloropropene	1.95	0.0430	0.500	"	2.00		97.5	80-120			
trans-1,3-Dichloropropene	1.95	0.0600	0.500	"	2.00		97.5	80-120			
Ethylbenzene	2.03	0.0570	0.500	"	2.00		102	80-120			
Hexachlorobutadiene	2.03	0.0700	0.500	"	2.00		102	80-120			
Isopropylbenzene	2.07	0.0210	0.500	"	2.00		104	80-120			
p-Isopropyltoluene	2.13	0.0440	0.500	"	2.00		106	80-120			
Methylene chloride	1.88	0.0270	0.500	"	2.00		94.0	80-120			
Naphthalene	1.90	0.0580	0.500	"	2.00		95.0	80-120			
n-Propylbenzene	2.13	0.0480	0.500	"	2.00		106	80-120			
Styrene	2.07	0.0160	0.500	"	2.00		104	80-120			
1,1,1,2-Tetrachloroethane	2.00	0.0550	0.500	"	2.00		100	80-120			
1,1,2,2-Tetrachloroethane	1.83	0.0560	0.500	"	2.00		91.5	80-120			
Tetrachloroethene	1.96	0.0710	0.500	"	2.00		98.0	80-120			
Toluene	1.97	0.0500	0.500	"	2.00		98.5	80-120			
1,2,3-Trichlorobenzene	1.96	0.0700	0.500	"	2.00		98.0	80-120			
1,2,4-Trichlorobenzene	1.93	0.0500	0.500	"	2.00		96.5	80-120			
1,1,1-Trichloroethane	1.96	0.0890	0.500	"	2.00		98.0	80-120			
1,1,2-Trichloroethane	1.87	0.0550	0.500	"	2.00		93.5	80-120			
Trichloroethene	1.99	0.0400	0.500	"	2.00		99.5	80-120			
Trichlorofluoromethane	1.99	0.0630	0.500	"	2.00		99.5	80-120			
1,2,3-Trichloropropane	1.86	0.114	0.500	"	2.00		93.0	80-120			
1,2,4-Trimethylbenzene	2.10	0.0460	0.500	"	2.00		105	80-120			
1,3,5-Trimethylbenzene	2.11	0.0120	0.500	"	2.00		106	80-120			
Vinyl chloride	1.91	0.0710	0.500	"	2.00		95.5	80-120			
m,p-Xylene	4.08	0.0800	0.500	"	4.00		102	80-120			

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
2001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
ederal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
atch 3K17038: Prepared 11/14/03 Using EPA 5030B											
CS (3K17038-BS1)											
Xylene	2.04	0.00900	0.500	ug/l	2.00		102	80-120			
Surrogate: 1,2-DCA-d4	*3.94*			"	*4.00*		*98.5*	*80-120*			
rrogate: Toluene-d8	*4.02*			"	*4.00*		*100*	*80-120*			
rrogate: 4-BFB	*4.09*			"	*4.00*		*102*	*80-120*			
LCS Dup (3K17038-BSD1)											
nzene	2.05	0.0520	0.500	ug/l	2.00		102	80-120	5.00	20	
omobenzene	2.07	0.0530	0.500	"	2.00		104	80-120	3.94	20	
Bromochloromethane	1.93	0.0680	0.500	"	2.00		96.5	80-120	3.16	20	
omodichloromethane	2.01	0.0450	0.500	"	2.00		100	80-120	2.01	20	
omoform	2.00	0.0560	0.500	"	2.00		100	80-120	9.42	20	
Bromomethane	2.14	0.0700	0.500	"	2.00		107	80-120	2.36	20	
Butylbenzene	1.98	0.0560	0.500	"	2.00		99.0	80-120	4.93	20	
c-Butylbenzene	2.13	0.0180	0.500	"	2.00		106	80-120	1.42	20	
tert-Butylbenzene	2.12	0.0470	0.500	"	2.00		106	80-120	3.25	20	
rbon tetrachloride	2.08	0.0580	0.500	"	2.00		104	80-120	3.92	20	
lorobenzene	2.07	0.0640	0.500	"	2.00		104	80-120	3.94	20	
Chloroethane	1.88	0.0870	0.500	"	2.00		94.0	80-120	6.59	20	
loroform	1.95	0.0610	0.500	"	2.00		97.5	80-120	0.514	20	
loromethane	2.07	0.140	0.500	"	2.00		104	80-120	8.56	20	
2-Chlorotoluene	1.92	0.0830	0.500	"	2.00		96.0	80-120	8.00	20	
Chlorotoluene	2.14	0.0720	0.500	"	2.00		107	80-120	2.36	20	
bromochloromethane	2.02	0.0210	0.500	"	2.00		101	80-120	0.00	20	
1,2-Dibromo-3-chloropropane	2.08	0.176	0.500	"	2.00		104	80-120	24.9	20	Q-07
2-Dibromoethane	2.00	0.0640	0.500	"	2.00		100	80-120	1.51	20	
bromomethane	2.04	0.0270	0.500	"	2.00		102	80-120	2.48	20	
1,2-Dichlorobenzene	2.00	0.0410	0.500	"	2.00		100	80-120	4.60	20	
3-Dichlorobenzene	1.99	0.0440	0.500	"	2.00		99.5	80-120	0.00	20	
4-Dichlorobenzene	1.96	0.0230	0.500	"	2.00		98.0	80-120	1.54	20	
Dichlorodifluoromethane	1.94	0.0880	0.500	"	2.00		97.0	80-120	0.517	20	
1-Dichloroethane	2.00	0.0470	0.500	"	2.00		100	80-120	3.05	20	

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John M. Clawson

hn Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Batch 3K17038: Prepared 11/14/03 Using EPA 5030B

LCS Dup (3K17038-BSD1)

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloroethane	2.03	0.0680	0.500	ug/l	2.00		102	80-120	0.494	20	
1,1-Dichloroethene	2.00	0.0530	0.500	"	2.00		100	80-120	1.51	20	
cis-1,2-Dichloroethene	2.04	0.0700	0.500	"	2.00		102	80-120	0.985	20	
trans-1,2-Dichloroethene	2.08	0.0500	0.500	"	2.00		104	80-120	4.42	20	
1,2-Dichloropropane	1.96	0.0280	0.500	"	2.00		98.0	80-120	0.509	20	
1,3-Dichloropropane	2.02	0.0410	0.500	"	2.00		101	80-120	3.02	20	
2,2-Dichloropropane	1.91	0.0970	0.500	"	2.00		95.5	80-120	2.12	20	
1,1-Dichloropropene	2.12	0.0430	0.500	"	2.00		106	80-120	5.33	20	
cis-1,3-Dichloropropene	2.03	0.0430	0.500	"	2.00		102	80-120	4.02	20	
trans-1,3-Dichloropropene	2.00	0.0600	0.500	"	2.00		100	80-120	2.53	20	
Ethylbenzene	2.10	0.0570	0.500	"	2.00		105	80-120	3.39	20	
Hexachlorobutadiene	1.75	0.0700	0.500	"	2.00		87.5	80-120	14.8	20	
Isopropylbenzene	2.15	0.0210	0.500	"	2.00		108	80-120	3.79	20	
p-Isopropyltoluene	2.09	0.0440	0.500	"	2.00		104	80-120	1.90	20	
Methylene chloride	1.94	0.0270	0.500	"	2.00		97.0	80-120	3.14	20	
Naphthalene	1.94	0.0580	0.500	"	2.00		97.0	80-120	2.08	20	
n-Propylbenzene	2.12	0.0480	0.500	"	2.00		106	80-120	0.471	20	
Styrene	2.19	0.0160	0.500	"	2.00		110	80-120	5.63	20	
1,1,1,2-Tetrachloroethane	2.02	0.0550	0.500	"	2.00		101	80-120	0.995	20	
1,1,2,2-Tetrachloroethane	1.79	0.0560	0.500	"	2.00		89.5	80-120	2.21	20	
Tetrachloroethene	2.10	0.0710	0.500	"	2.00		105	80-120	6.90	20	
Toluene	2.10	0.0500	0.500	"	2.00		105	80-120	6.39	20	
1,2,3-Trichlorobenzene	1.92	0.0700	0.500	"	2.00		96.0	80-120	2.06	20	
1,2,4-Trichlorobenzene	1.95	0.0500	0.500	"	2.00		97.5	80-120	1.03	20	
1,1,1-Trichloroethane	2.06	0.0890	0.500	"	2.00		103	80-120	4.98	20	
1,1,2-Trichloroethane	1.94	0.0550	0.500	"	2.00		97.0	80-120	3.67	20	
Trichloroethene	2.03	0.0400	0.500	"	2.00		102	80-120	1.99	20	
Trichlorofluoromethane	1.98	0.0630	0.500	"	2.00		99.0	80-120	0.504	20	
1,2,3-Trichloropropane	1.92	0.114	0.500	"	2.00		96.0	80-120	3.17	20	
1,2,4-Trimethylbenzene	2.05	0.0460	0.500	"	2.00		102	80-120	2.41	20	
1,3,5-Trimethylbenzene	2.12	0.0120	0.500	"	2.00		106	80-120	0.473	20	

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John M. Clawson

Kennedy/Jenks Consultants 32001 32nd Ave S Ste 100 Federal Way, WA/USA 98001	Project: BNSF-Livingston, MT Project Number: 026021.16 Project Manager: Sarah Kraja	**Reported:** 12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K17038: Prepared 11/14/03 Using EPA 5030B											
CS Dup (3K17038-BSD1)											
nyl chloride	2.01	0.0710	0.500	ug/l	2.00		100	80-120	5.10	20	
m,p-Xylene	4.30	0.0800	0.500	"	4.00		108	80-120	5.25	20	
o-Xylene	2.20	0.00900	0.500	"	2.00		110	80-120	7.55	20	
rrogate: 1,2-DCA-d4	*3.92*			*"*	*4.00*		*98.0*	*80-120*			
Surrogate: Toluene-d8	*4.00*			*"*	*4.00*		*100*	*80-120*			
rrogate: 4-BFB	*3.97*			*"*	*4.00*		*99.2*	*80-120*			
Batch 3K19009: Prepared 11/18/03 Using EPA 5030B											
lank (3K19009-BLK1)											
enzene	ND	0.0520	0.500	ug/l							
Bromobenzene	ND	0.0530	0.500	"							
romochloromethane	ND	0.0680	0.500	"							
romodichloromethane	ND	0.0450	0.500	"							
Bromoform	ND	0.0560	0.500	"							
romomethane	ND	0.0700	0.500	"							
Butylbenzene	ND	0.0560	0.500	"							
sec-Butylbenzene	ND	0.0180	0.500	"							
rt-Butylbenzene	ND	0.0470	0.500	"							
arbon tetrachloride	ND	0.0580	0.500	"							
Chlorobenzene	ND	0.0640	0.500	"							
hloroethane	ND	0.0870	0.500	"							
hloroform	ND	0.0610	0.500	"							
Chloromethane	ND	0.140	0.500	"							
Chlorotoluene	ND	0.0830	0.500	"							
Chlorotoluene	ND	0.0720	0.500	"							
Dibromochloromethane	ND	0.0210	0.500	"							
2-Dibromo-3-chloropropane	ND	0.176	0.500	"							
2-Dibromoethane	ND	0.0640	0.500	"							
Dibromomethane	ND	0.0270	0.500	"							
2-Dichlorobenzene	ND	0.0410	0.500	"							
3-Dichlorobenzene	ND	0.0440	0.500	"							

North Creek Analytical - Bothell

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John M. Clawson

ohn Clawson, Project Manager

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19009: Prepared 11/18/03 Using EPA 5030B											
Blank (3K19009-BLK1)											
1,4-Dichlorobenzene	ND	0.0230	0.500	ug/l							
Dichlorodifluoromethane	ND	0.0880	0.500	"							
1,1-Dichloroethane	ND	0.0470	0.500	"							
1,2-Dichloroethane	ND	0.0680	0.500	"							
1,1-Dichloroethene	ND	0.0530	0.500	"							
cis-1,2-Dichloroethene	ND	0.0700	0.500	"							
trans-1,2-Dichloroethene	ND	0.0500	0.500	"							
1,2-Dichloropropane	ND	0.0280	0.500	"							
1,3-Dichloropropane	ND	0.0410	0.500	"							
2,2-Dichloropropane	ND	0.0970	0.500	"							
1,1-Dichloropropene	ND	0.0430	0.500	"							
cis-1,3-Dichloropropene	ND	0.0430	0.500	"							
trans-1,3-Dichloropropene	ND	0.0600	0.500	"							
Ethylbenzene	ND	0.0570	0.500	"							
Hexachlorobutadiene	ND	0.0700	0.500	"							
Isopropylbenzene	ND	0.0210	0.500	"							
p-Isopropyltoluene	ND	0.0440	0.500	"							
Methylene chloride	ND	0.0270	0.500	"							
Naphthalene	ND	0.0580	0.500	"							
n-Propylbenzene	ND	0.0480	0.500	"							
Styrene	ND	0.0160	0.500	"							
1,1,1,2-Tetrachloroethane	ND	0.0550	0.500	"							
1,1,2,2-Tetrachloroethane	ND	0.0560	0.500	"							
Tetrachloroethene	ND	0.0710	0.500	"							
Toluene	ND	0.0500	0.500	"							
1,2,3-Trichlorobenzene	ND	0.0700	0.500	"							
1,2,4-Trichlorobenzene	ND	0.0500	0.500	"							
1,1,1-Trichloroethane	ND	0.0890	0.500	"							
1,1,2-Trichloroethane	ND	0.0550	0.500	"							
Trichloroethene	ND	0.0400	0.500	"							
Trichlorofluoromethane	ND	0.0630	0.500	"							

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
2001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
ederal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
atch 3K19009: Prepared 11/18/03 Using EPA 5030B											
ank (3K19009-BLK1)											
,3-Trichloropropane	ND	0.114	0.500	ug/l							
1,2,4-Trimethylbenzene	ND	0.0460	0.500	"							
1,3,5-Trimethylbenzene	ND	0.0120	0.500	"							
nyl chloride	ND	0.0710	0.500	"							
m,p-Xylene	ND	0.0800	0.500	"							
o-Xylene	ND	0.00900	0.500	"							
rrogate: 1,2-DCA-d4	*4.33*			*"*	*4.00*		*108*	*80-120*			
Surrogate: Toluene-d8	*3.82*			*"*	*4.00*		*95.5*	*80-120*			
rrogate: 4-BFB	*4.07*			*"*	*4.00*		*102*	*80-120*			
CS (3K19009-BS1)											
Benzene	2.03	0.0520	0.500	ug/l	2.00		102	80-120			
omobenzene	2.06	0.0530	0.500	"	2.00		103	80-120			
omochloromethane	2.30	0.0680	0.500	"	2.00		115	80-120			
Bromodichloromethane	2.17	0.0450	0.500	"	2.00		108	80-120			
omoform	2.18	0.0560	0.500	"	2.00		109	80-120			
omomethane	1.71	0.0700	0.500	"	2.00		85.5	80-120			
n-Butylbenzene	1.94	0.0560	0.500	"	2.00		97.0	80-120			
c-Butylbenzene	1.86	0.0180	0.500	"	2.00		93.0	80-120			
t-Butylbenzene	1.93	0.0470	0.500	"	2.00		96.5	80-120			
Carbon tetrachloride	2.12	0.0580	0.500	"	2.00		106	80-120			
lorobenzene	1.90	0.0640	0.500	"	2.00		95.0	80-120			
loroethane	1.88	0.0870	0.500	"	2.00		94.0	80-120			
Chloroform	2.21	0.0610	0.500	"	2.00		110	80-120			
hloromethane	2.08	0.140	0.500	"	2.00		104	80-120			
Chlorotoluene	1.89	0.0830	0.500	"	2.00		94.5	80-120			
4-Chlorotoluene	2.07	0.0720	0.500	"	2.00		104	80-120			
bromochloromethane	2.09	0.0210	0.500	"	2.00		104	80-120			
,2-Dibromo-3-chloropropane	2.15	0.176	0.500	"	2.00		108	80-120			
1,2-Dibromoethane	2.05	0.0640	0.500	"	2.00		102	80-120			
ibromomethane	2.26	0.0270	0.500	"	2.00		113	80-120			

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19009: Prepared 11/18/03 Using EPA 5030B											
LCS (3K19009-BS1)											
1,2-Dichlorobenzene	2.04	0.0410	0.500	ug/l	2.00		102	80-120			
1,3-Dichlorobenzene	2.02	0.0440	0.500	"	2.00		101	80-120			
1,4-Dichlorobenzene	2.01	0.0230	0.500	"	2.00		100	80-120			
Dichlorodifluoromethane	2.20	0.0880	0.500	"	2.00		110	80-120			
1,1-Dichloroethane	2.17	0.0470	0.500	"	2.00		108	80-120			
1,2-Dichloroethane	2.23	0.0680	0.500	"	2.00		112	80-120			
1,1-Dichloroethene	1.98	0.0530	0.500	"	2.00		99.0	80-120			
cis-1,2-Dichloroethene	2.29	0.0700	0.500	"	2.00		114	80-120			
trans-1,2-Dichloroethene	2.11	0.0500	0.500	"	2.00		106	80-120			
1,2-Dichloropropane	2.09	0.0280	0.500	"	2.00		104	80-120			
1,3-Dichloropropane	2.15	0.0410	0.500	"	2.00		108	80-120			
2,2-Dichloropropane	2.29	0.0970	0.500	"	2.00		114	80-120			
1,1-Dichloropropene	2.30	0.0430	0.500	"	2.00		115	80-120			
cis-1,3-Dichloropropene	2.22	0.0430	0.500	"	2.00		111	80-120			
trans-1,3-Dichloropropene	2.16	0.0600	0.500	"	2.00		108	80-120			
Ethylbenzene	1.94	0.0570	0.500	"	2.00		97.0	80-120			
Hexachlorobutadiene	2.01	0.0700	0.500	"	2.00		100	80-120			
Isopropylbenzene	1.94	0.0210	0.500	"	2.00		97.0	80-120			
p-Isopropyltoluene	2.08	0.0440	0.500	"	2.00		104	80-120			
Methylene chloride	2.06	0.0270	0.500	"	2.00		103	80-120			
Naphthalene	2.11	0.0580	0.500	"	2.00		106	80-120			
n-Propylbenzene	1.82	0.0480	0.500	"	2.00		91.0	80-120			
Styrene	2.20	0.0160	0.500	"	2.00		110	80-120			
1,1,1,2-Tetrachloroethane	2.11	0.0550	0.500	"	2.00		106	80-120			
1,1,2,2-Tetrachloroethane	1.96	0.0560	0.500	"	2.00		98.0	80-120			
Tetrachloroethene	1.93	0.0710	0.500	"	2.00		96.5	80-120			
Toluene	1.94	0.0500	0.500	"	2.00		97.0	80-120			
1,2,3-Trichlorobenzene	2.06	0.0700	0.500	"	2.00		103	80-120			
1,2,4-Trichlorobenzene	2.06	0.0500	0.500	"	2.00		103	80-120			
1,1,1-Trichloroethane	2.23	0.0890	0.500	"	2.00		112	80-120			
1,1,2-Trichloroethane	2.08	0.0550	0.500	"	2.00		104	80-120			

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
atch 3K19009: Prepared 11/18/03 Using EPA 5030B											
CS (3K19009-BS1)											
ichloroethene	2.21	0.0400	0.500	ug/l	2.00		110	80-120			
Trichlorofluoromethane	2.16	0.0630	0.500	"	2.00		108	80-120			
1,2,3-Trichloropropane	1.96	0.114	0.500	"	2.00		98.0	80-120			
2,4-Trimethylbenzene	2.04	0.0460	0.500	"	2.00		102	80-120			
1,3,5-Trimethylbenzene	2.06	0.0120	0.500	"	2.00		103	80-120			
Vinyl chloride	1.93	0.0710	0.500	"	2.00		96.5	80-120			
,p-Xylene	4.05	0.0800	0.500	"	4.00		101	80-120			
o-Xylene	2.05	0.00900	0.500	"	2.00		102	80-120			
urrogate: 1,2-DCA-d4	*4.24*			"	*4.00*		*106*	*80-120*			
urrogate: Toluene-d8	*3.79*			"	*4.00*		*94.8*	*80-120*			
Surrogate: 4-BFB	*3.89*			"	*4.00*		*97.2*	*80-120*			
CS Dup (3K19009-BSD1)											
enzene	1.98	0.0520	0.500	ug/l	2.00		99.0	80-120	2.49	20	
Bromobenzene	2.07	0.0530	0.500	"	2.00		104	80-120	0.484	20	
romochloromethane	2.34	0.0680	0.500	"	2.00		117	80-120	1.72	20	
romodichloromethane	2.18	0.0450	0.500	"	2.00		109	80-120	0.460	20	
Bromoform	2.17	0.0560	0.500	"	2.00		108	80-120	0.460	20	
romomethane	1.81	0.0700	0.500	"	2.00		90.5	80-120	5.68	20	
-Butylbenzene	1.91	0.0560	0.500	"	2.00		95.5	80-120	1.56	20	
sec-Butylbenzene	1.84	0.0180	0.500	"	2.00		92.0	80-120	1.08	20	
rt-Butylbenzene	1.84	0.0470	0.500	"	2.00		92.0	80-120	4.77	20	
arbon tetrachloride	2.08	0.0580	0.500	"	2.00		104	80-120	1.90	20	
Chlorobenzene	1.93	0.0640	0.500	"	2.00		96.5	80-120	1.57	20	
hloroethane	1.97	0.0870	0.500	"	2.00		98.5	80-120	4.68	20	
hloroform	2.30	0.0610	0.500	"	2.00		115	80-120	3.99	20	
Chloromethane	2.12	0.140	0.500	"	2.00		106	80-120	1.90	20	
Chlorotoluene	1.90	0.0830	0.500	"	2.00		95.0	80-120	0.528	20	
-Chlorotoluene	2.03	0.0720	0.500	"	2.00		102	80-120	1.95	20	
Dibromochloromethane	2.18	0.0210	0.500	"	2.00		109	80-120	4.22	20	
2-Dibromo-3-chloropropane	2.01	0.176	0.500	"	2.00		100	80-120	6.73	20	

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

Batch 3K19009: Prepared 11/18/03 Using EPA 5030B

LCS Dup (3K19009-BSD1)

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromoethane	2.03	0.0640	0.500	ug/l	2.00		102	80-120	0.980	20	
Dibromomethane	2.27	0.0270	0.500	"	2.00		114	80-120	0.442	20	
1,2-Dichlorobenzene	2.05	0.0410	0.500	"	2.00		102	80-120	0.489	20	
1,3-Dichlorobenzene	2.06	0.0440	0.500	"	2.00		103	80-120	1.96	20	
1,4-Dichlorobenzene	1.98	0.0230	0.500	"	2.00		99.0	80-120	1.50	20	
Dichlorodifluoromethane	2.21	0.0880	0.500	"	2.00		110	80-120	0.454	20	
1,1-Dichloroethane	2.22	0.0470	0.500	"	2.00		111	80-120	2.28	20	
1,2-Dichloroethane	2.22	0.0680	0.500	"	2.00		111	80-120	0.449	20	
1,1-Dichloroethene	1.98	0.0530	0.500	"	2.00		99.0	80-120	0.00	20	
cis-1,2-Dichloroethene	2.37	0.0700	0.500	"	2.00		118	80-120	3.43	20	
trans-1,2-Dichloroethene	2.14	0.0500	0.500	"	2.00		107	80-120	1.41	20	
1,2-Dichloropropane	2.10	0.0280	0.500	"	2.00		105	80-120	0.477	20	
1,3-Dichloropropane	2.09	0.0410	0.500	"	2.00		104	80-120	2.83	20	
2,2-Dichloropropane	2.35	0.0970	0.500	"	2.00		118	80-120	2.59	20	
1,1-Dichloropropene	2.34	0.0430	0.500	"	2.00		117	80-120	1.72	20	
cis-1,3-Dichloropropene	2.29	0.0430	0.500	"	2.00		114	80-120	3.10	20	
trans-1,3-Dichloropropene	2.16	0.0600	0.500	"	2.00		108	80-120	0.00	20	
Ethylbenzene	1.92	0.0570	0.500	"	2.00		96.0	80-120	1.04	20	
Hexachlorobutadiene	1.94	0.0700	0.500	"	2.00		97.0	80-120	3.54	20	
Isopropylbenzene	1.90	0.0210	0.500	"	2.00		95.0	80-120	2.08	20	
p-Isopropyltoluene	2.07	0.0440	0.500	"	2.00		104	80-120	0.482	20	
Methylene chloride	2.31	0.0270	0.500	"	2.00		116	80-120	11.4	20	
Naphthalene	2.15	0.0580	0.500	"	2.00		108	80-120	1.88	20	
n-Propylbenzene	1.78	0.0480	0.500	"	2.00		89.0	80-120	2.22	20	
Styrene	2.26	0.0160	0.500	"	2.00		113	80-120	2.69	20	
1,1,1,2-Tetrachloroethane	2.16	0.0550	0.500	"	2.00		108	80-120	2.34	20	
1,1,2,2-Tetrachloroethane	1.89	0.0560	0.500	"	2.00		94.5	80-120	3.64	20	
Tetrachloroethene	1.91	0.0710	0.500	"	2.00		95.5	80-120	1.04	20	
Toluene	1.85	0.0500	0.500	"	2.00		92.5	80-120	4.75	20	
1,2,3-Trichlorobenzene	2.17	0.0700	0.500	"	2.00		108	80-120	5.20	20	
1,2,4-Trichlorobenzene	2.03	0.0500	0.500	"	2.00		102	80-120	1.47	20	

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Purgeable Organic Compounds by EPA Method 524.2 - Quality Control
North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19009: Prepared 11/18/03 Using EPA 5030B											
CS Dup (3K19009-BSD1)											
1,1-Trichloroethane	2.28	0.0890	0.500	ug/l	2.00		114	80-120	2.22	20	
1,1,2-Trichloroethane	2.22	0.0550	0.500	"	2.00		111	80-120	6.51	20	
Trichloroethene	2.09	0.0400	0.500	"	2.00		104	80-120	5.58	20	
ichlorofluoromethane	2.18	0.0630	0.500	"	2.00		109	80-120	0.922	20	
1,2,3-Trichloropropane	1.82	0.114	0.500	"	2.00		91.0	80-120	7.41	20	
1,2,4-Trimethylbenzene	2.05	0.0460	0.500	"	2.00		102	80-120	0.489	20	
3,5-Trimethylbenzene	2.02	0.0120	0.500	"	2.00		101	80-120	1.96	20	
Vinyl chloride	2.00	0.0710	0.500	"	2.00		100	80-120	3.56	20	
m,p-Xylene	4.04	0.0800	0.500	"	4.00		101	80-120	0.247	20	
Xylene	2.07	0.00900	0.500	"	2.00		104	80-120	0.971	20	
Surrogate: 1,2-DCA-d4	*4.40*			"	*4.00*		*110*	*80-120*			
rrogate: Toluene-d8	*3.78*			"	*4.00*		*94.5*	*80-120*			
rrogate: 4-BFB	*4.02*			"	*4.00*		*100*	*80-120*			

North Creek Analytical - Bothell

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John M. Clawson

ohn Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Batch 3K13042: Prepared 11/13/03 Using EPA 5030B

Blank (3K13042-BLK1)

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l							
Acetone	ND	1.43	10.0	"							
Benzene	ND	0.281	0.500	"							
Bromobenzene	ND	0.203	0.500	"							
Bromochloromethane	ND	0.262	0.500	"							
Bromodichloromethane	ND	0.237	0.500	"							
Bromoform	ND	0.304	0.500	"							
Bromomethane	ND	0.463	0.500	"							
2-Butanone	ND	2.80	10.0	"							
n-Butylbenzene	ND	0.395	0.500	"							
sec-Butylbenzene	ND	0.223	0.500	"							
tert-Butylbenzene	ND	0.215	0.500	"							
Carbon disulfide	ND	0.315	0.500	"							
Carbon tetrachloride	ND	0.186	0.500	"							
Chlorobenzene	ND	0.136	0.500	"							
Chloroethane	ND	0.220	0.500	"							
Chloroform	ND	0.212	0.500	"							
Chloromethane	ND	0.389	1.00	"							
2-Chlorotoluene	ND	0.135	0.500	"							
4-Chlorotoluene	ND	0.428	0.500	"							
1,2-Dibromo-3-chloropropane	ND	0.425	1.00	"							
Dibromochloromethane	ND	0.108	0.500	"							
1,2-Dibromoethane	ND	0.160	0.500	"							
Dibromomethane	ND	0.244	0.500	"							
1,2-Dichlorobenzene	ND	0.157	0.500	"							
1,3-Dichlorobenzene	ND	0.273	0.500	"							
1,4-Dichlorobenzene	ND	0.109	0.500	"							
Dichlorodifluoromethane	ND	0.332	0.500	"							
1,1-Dichloroethane	ND	0.217	0.500	"							
1,2-Dichloroethane	ND	0.232	0.500	"							
1,1-Dichloroethene	ND	0.207	0.500	"							

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Volatile Organic Compounds by EPA Method 8260B - Quality Control

North Creek Analytical - Bothell

nalyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K13042: Prepared 11/13/03 Using EPA 5030B											
Blank (3K13042-BLK1)											
s-1,2-Dichloroethene	ND	0.229	0.500	ug/l							
trans-1,2-Dichloroethene	ND	0.244	0.500	"							
1,2-Dichloropropane	ND	0.234	0.500	"							
3-Dichloropropane	ND	0.163	0.500	"							
2,2-Dichloropropane	ND	0.189	0.500	"							
1,1-Dichloropropene	ND	0.248	0.500	"							
s-1,3-Dichloropropene	ND	0.144	0.500	"							
trans-1,3-Dichloropropene	ND	0.144	0.500	"							
Ethylbenzene	ND	0.328	0.500	"							
exachlorobutadiene	ND	0.251	0.500	"							
2-Hexanone	ND	2.17	10.0	"							
Isopropylbenzene	ND	0.237	0.500	"							
Isopropyltoluene	ND	0.211	0.500	"							
Methylene chloride	ND	0.305	2.50	"							
4-Methyl-2-pentanone	ND	1.57	10.0	"							
aphthalene	ND	0.914	1.00	"							
n-Propylbenzene	ND	0.273	0.500	"							
Styrene	ND	0.238	0.500	"							
2,3-Trichlorobenzene	ND	0.587	1.00	"							
1,2,4-Trichlorobenzene	ND	0.473	0.500	"							
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"							
,2,2-Tetrachloroethane	ND	0.832	1.00	"							
Tetrachloroethene	ND	0.216	0.500	"							
Toluene	ND	0.982	1.00	"							
,1-Trichloroethane	ND	0.208	0.500	"							
1,1,2-Trichloroethane	ND	0.143	0.500	"							
Trichloroethene	ND	0.264	0.500	"							
ichlorofluoromethane	ND	0.208	0.500	"							
1,2,3-Trichloropropane	ND	0.219	0.500	"							
1,2,4-Trimethylbenzene	ND	0.592	1.00	"							
3,5-Trimethylbenzene	ND	0.444	0.500	"							

North Creek Analytical - Bothell

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John M. Clawson

John Clawson, Project Manager

Kennedy/Jenks Consultants
32001 32nd Ave S Ste 100
Federal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K13042: Prepared 11/13/03 Using EPA 5030B											
Blank (3K13042-BLK1)											
Vinyl chloride	ND	0.270	0.500	ug/l							
o-Xylene	ND	0.463	0.500	"							
m,p-Xylene	ND	1.53	2.00	"							
Surrogate: 1,2-DCA-d4	*19.1*			"	*20.0*		*95.5*	*70-130*			
Surrogate: Toluene-d8	*22.3*			"	*20.0*		*112*	*70-130*			
Surrogate: 4-BFB	*20.0*			"	*20.0*		*100*	*70-130*			
LCS (3K13042-BS1)											
Benzene	8.92	0.281	0.500	ug/l	10.0		89.2	80-120			
Chlorobenzene	8.48	0.136	0.500	"	10.0		84.8	77-120			
1,1-Dichloroethene	10.1	0.207	0.500	"	10.0		101	80-120			
Toluene	9.93	0.982	1.00	"	10.0		99.3	80-120			
Trichloroethene	8.71	0.264	0.500	"	10.0		87.1	80-120			
Surrogate: 1,2-DCA-d4	*20.1*			"	*20.0*		*100*	*70-130*			
Surrogate: Toluene-d8	*23.0*			"	*20.0*		*115*	*70-130*			
Surrogate: 4-BFB	*19.6*			"	*20.0*		*98.0*	*70-130*			
LCS Dup (3K13042-BSD1)											
Benzene	8.96	0.281	0.500	ug/l	10.0		89.6	80-120	0.447	20	
Chlorobenzene	9.23	0.136	0.500	"	10.0		92.3	77-120	8.47	20	
1,1-Dichloroethene	10.5	0.207	0.500	"	10.0		105	80-120	3.88	20	
Toluene	9.85	0.982	1.00	"	10.0		98.5	80-120	0.809	20	
Trichloroethene	9.36	0.264	0.500	"	10.0		93.6	80-120	7.19	20	
Surrogate: 1,2-DCA-d4	*18.9*			"	*20.0*		*94.5*	*70-130*			
Surrogate: Toluene-d8	*20.1*			"	*20.0*		*100*	*70-130*			
Surrogate: 4-BFB	*19.5*			"	*20.0*		*97.5*	*70-130*			

North Creek Analytical - Bothell

John M. Clawson

John Clawson, Project Manager

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Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Batch 3K19039: Prepared 11/17/03 Using EPA 5030B

Blank (3K19039-BLK1)

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloroethylvinyl ether	ND	0.259	1.00	ug/l							
Acetone	ND	1.43	10.0	"							
Benzene	ND	0.281	0.500	"							
romobenzene	ND	0.203	0.500	"							
Bromochloromethane	ND	0.262	0.500	"							
Bromodichloromethane	ND	0.237	0.500	"							
romoform	ND	0.304	0.500	"							
Bromomethane	ND	0.463	0.500	"							
2-Butanone	ND	2.80	10.0	"							
Butylbenzene	ND	0.395	0.500	"							
sec-Butylbenzene	ND	0.223	0.500	"							
tert-Butylbenzene	ND	0.215	0.500	"							
arbon disulfide	ND	0.315	0.500	"							
Carbon tetrachloride	ND	0.186	0.500	"							
Chlorobenzene	ND	0.136	0.500	"							
hloroethane	ND	0.220	0.500	"							
Chloroform	ND	0.212	0.500	"							
Chloromethane	ND	0.389	1.00	"							
Chlorotoluene	ND	0.135	0.500	"							
4-Chlorotoluene	ND	0.428	0.500	"							
1,2-Dibromo-3-chloropropane	ND	0.425	1.00	"							
bromochloromethane	ND	0.108	0.500	"							
1,2-Dibromoethane	ND	0.160	0.500	"							
Dibromomethane	ND	0.244	0.500	"							
2-Dichlorobenzene	ND	0.157	0.500	"							
1,3-Dichlorobenzene	ND	0.273	0.500	"							
1,4-Dichlorobenzene	ND	0.109	0.500	"							
chlorodifluoromethane	ND	0.332	0.500	"							
1,1-Dichloroethane	ND	0.217	0.500	"							
1,2-Dichloroethane	ND	0.232	0.500	"							
1-Dichloroethene	ND	0.207	0.500	"							

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

ohn Clawson, Project Manager

Kennedy/Jenks Consultants 32001 32nd Ave S Ste 100 Federal Way, WA/USA 98001	Project: BNSF-Livingston, MT Project Number: 026021.16 Project Manager: Sarah Kraja	**Reported:** 12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control

North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19039: Prepared 11/17/03 Using EPA 5030B											
Blank (3K19039-BLK1)											
cis-1,2-Dichloroethene	ND	0.229	0.500	ug/l							
trans-1,2-Dichloroethene	ND	0.244	0.500	"							
1,2-Dichloropropane	ND	0.234	0.500	"							
1,3-Dichloropropane	ND	0.163	0.500	"							
2,2-Dichloropropane	ND	0.189	0.500	"							
1,1-Dichloropropene	ND	0.248	0.500	"							
cis-1,3-Dichloropropene	ND	0.144	0.500	"							
trans-1,3-Dichloropropene	ND	0.144	0.500	"							
Ethylbenzene	ND	0.328	0.500	"							
Hexachlorobutadiene	ND	0.251	0.500	"							
2-Hexanone	ND	2.17	10.0	"							
Isopropylbenzene	ND	0.237	0.500	"							
p-Isopropyltoluene	ND	0.211	0.500	"							
Methylene chloride	ND	0.305	2.50	"							
4-Methyl-2-pentanone	ND	1.57	10.0	"							
Naphthalene	ND	0.914	1.00	"							
n-Propylbenzene	ND	0.273	0.500	"							
Styrene	ND	0.238	0.500	"							
1,2,3-Trichlorobenzene	ND	0.587	1.00	"							
1,2,4-Trichlorobenzene	ND	0.473	0.500	"							
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"							
1,1,2,2-Tetrachloroethane	ND	0.832	1.00	"							
Tetrachloroethene	ND	0.216	0.500	"							
Toluene	ND	0.982	1.00	"							
1,1,1-Trichloroethane	ND	0.208	0.500	"							
1,1,2-Trichloroethane	ND	0.143	0.500	"							
Trichloroethene	ND	0.264	0.500	"							
Trichlorofluoromethane	ND	0.208	0.500	"							
1,2,3-Trichloropropane	ND	0.219	0.500	"							
1,2,4-Trimethylbenzene	ND	0.592	1.00	"							
1,3,5-Trimethylbenzene	ND	0.444	0.500	"							

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John M. Clawson

John Clawson, Project Manager

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

alyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19039: Prepared 11/17/03 Using EPA 5030B											
Blank (3K19039-BLK1)											
yl chloride	ND	0.270	0.500	ug/l							
o-Xylene	ND	0.463	0.500	"							
m,p-Xylene	ND	1.53	2.00	"							
rrogate: 1,2-DCA-d4	*22.5*			*"*	*20.0*		*112*	*70-130*			
Surrogate: Toluene-d8	*18.8*			*"*	*20.0*		*94.0*	*70-130*			
rrogate: 4-BFB	*20.0*			*"*	*20.0*		*100*	*70-130*			
CS (3K19039-BS1)											
Benzene	9.04	0.281	0.500	ug/l	10.0		90.4	80-120			
orobenzene	9.35	0.136	0.500	"	10.0		93.5	77-120			
-Dichloroethene	9.51	0.207	0.500	"	10.0		95.1	80-120			
Toluene	8.84	0.982	1.00	"	10.0		88.4	80-120			
chloroethene	9.17	0.264	0.500	"	10.0		91.7	80-120			
urrogate: 1,2-DCA-d4	*21.5*			*"*	*20.0*		*108*	*70-130*			
Surrogate: Toluene-d8	*19.0*			*"*	*20.0*		*95.0*	*70-130*			
rogate: 4-BFB	*20.5*			*"*	*20.0*		*102*	*70-130*			
LCS Dup (3K19039-BSD1)											
zene	9.66	0.281	0.500	ug/l	10.0		96.6	80-120	6.63	20	
orobenzene	9.82	0.136	0.500	"	10.0		98.2	77-120	4.90	20	
1,1-Dichloroethene	9.94	0.207	0.500	"	10.0		99.4	80-120	4.42	20	
uene	9.21	0.982	1.00	"	10.0		92.1	80-120	4.10	20	
chloroethene	9.93	0.264	0.500	"	10.0		99.3	80-120	7.96	20	
Surrogate: 1,2-DCA-d4	*21.7*			*"*	*20.0*		*108*	*70-130*			
rogate: Toluene-d8	*18.3*			*"*	*20.0*		*91.5*	*70-130*			
rogate: 4-BFB	*20.2*			*"*	*20.0*		*101*	*70-130*			

Kennedy/Jenks Consultants	Project: BNSF-Livingston, MT	
32001 32nd Ave S Ste 100	Project Number: 026021.16	**Reported:**
Federal Way, WA/USA 98001	Project Manager: Sarah Kraja	12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19042: Prepared 11/19/03 Using EPA 5030B											
Blank (3K19042-BLK1)											
2-Chloroethylvinyl ether	ND	0.259	1.00	ug/l							
Acetone	ND	1.43	10.0	"							
Benzene	ND	0.281	0.500	"							
Bromobenzene	ND	0.203	0.500	"							
Bromochloromethane	ND	0.262	0.500	"							
Bromodichloromethane	ND	0.237	0.500	"							
Bromoform	ND	0.304	0.500	"							
Bromomethane	ND	0.463	0.500	"							
2-Butanone	ND	2.80	10.0	"							
n-Butylbenzene	ND	0.395	0.500	"							
sec-Butylbenzene	ND	0.223	0.500	"							
tert-Butylbenzene	ND	0.215	0.500	"							
Carbon disulfide	ND	0.315	0.500	"							
Carbon tetrachloride	ND	0.186	0.500	"							
Chlorobenzene	ND	0.136	0.500	"							
Chloroethane	ND	0.220	0.500	"							
Chloroform	ND	0.212	0.500	"							
Chloromethane	ND	0.389	1.00	"							
2-Chlorotoluene	ND	0.135	0.500	"							
4-Chlorotoluene	ND	0.428	0.500	"							
1,2-Dibromo-3-chloropropane	ND	0.425	1.00	"							
Dibromochloromethane	ND	0.108	0.500	"							
1,2-Dibromoethane	ND	0.160	0.500	"							
Dibromomethane	ND	0.244	0.500	"							
1,2-Dichlorobenzene	ND	0.157	0.500	"							
1,3-Dichlorobenzene	ND	0.273	0.500	"							
1,4-Dichlorobenzene	ND	0.109	0.500	"							
Dichlorodifluoromethane	ND	0.332	0.500	"							
1,1-Dichloroethane	ND	0.217	0.500	"							
1,2-Dichloroethane	ND	0.232	0.500	"							
1,1-Dichloroethene	ND	0.207	0.500	"							

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

John Clawson, Project Manager

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
atch 3K19042: Prepared 11/19/03 Using EPA 5030B											
Blank (3K19042-BLK1)											
s-1,2-Dichloroethene	ND	0.229	0.500	ug/l							
ans-1,2-Dichloroethene	ND	0.244	0.500	"							
1,2-Dichloropropane	ND	0.234	0.500	"							
3-Dichloropropane	ND	0.163	0.500	"							
,2-Dichloropropane	ND	0.189	0.500	"							
1,1-Dichloropropene	ND	0.248	0.500	"							
s-1,3-Dichloropropene	ND	0.144	0.500	"							
ans-1,3-Dichloropropene	ND	0.144	0.500	"							
Ethylbenzene	ND	0.328	0.500	"							
exachlorobutadiene	ND	0.251	0.500	"							
Hexanone	ND	2.17	10.0	"							
Isopropylbenzene	ND	0.237	0.500	"							
Isopropyltoluene	ND	0.211	0.500	"							
ethylene chloride	ND	0.305	2.50	"							
4-Methyl-2-pentanone	ND	1.57	10.0	"							
aphthalene	ND	0.914	1.00	"							
Propylbenzene	ND	0.273	0.500	"							
Styrene	ND	0.238	0.500	"							
2,3-Trichlorobenzene	ND	0.587	1.00	"							
,2,4-Trichlorobenzene	ND	0.473	0.500	"							
1,1,1,2-Tetrachloroethane	ND	0.119	0.500	"							
,2,2-Tetrachloroethane	ND	0.832	1.00	"							
etrachloroethene	ND	0.216	0.500	"							
Toluene	ND	0.982	1.00	"							
,1-Trichloroethane	ND	0.208	0.500	"							
,1,2-Trichloroethane	ND	0.143	0.500	"							
Trichloroethene	ND	0.264	0.500	"							
ichlorofluoromethane	ND	0.208	0.500	"							
,2,3-Trichloropropane	ND	0.219	0.500	"							
1,2,4-Trimethylbenzene	ND	0.592	1.00	"							
,5-Trimethylbenzene	ND	0.444	0.500	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Kennedy/Jenks Consultants 32001 32nd Ave S Ste 100 Federal Way, WA/USA 98001	Project: BNSF-Livingston, MT Project Number: 026021.16 Project Manager: Sarah Kraja	Reported: 12/04/03 15:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3K19042: Prepared 11/19/03 Using EPA 5030B											
Blank (3K19042-BLK1)											
Vinyl chloride	ND	0.270	0.500	ug/l							
o-Xylene	ND	0.463	0.500	"							
m,p-Xylene	ND	1.53	2.00	"							
Surrogate: 1,2-DCA-d4	*19.2*			"	*20.0*		*96.0*	*70-130*			
Surrogate: Toluene-d8	*20.7*			"	*20.0*		*104*	*70-130*			
Surrogate: 4-BFB	*19.6*			"	*20.0*		*98.0*	*70-130*			
LCS (3K19042-BS1)											
Benzene	8.96	0.281	0.500	ug/l	10.0		89.6	80-120			
Chlorobenzene	9.30	0.136	0.500	"	10.0		93.0	77-120			
1,1-Dichloroethene	8.90	0.207	0.500	"	10.0		89.0	80-120			
Toluene	9.39	0.982	1.00	"	10.0		93.9	80-120			
Trichloroethene	9.34	0.264	0.500	"	10.0		93.4	80-120			
Surrogate: 1,2-DCA-d4	*19.6*			"	*20.0*		*98.0*	*70-130*			
Surrogate: Toluene-d8	*20.3*			"	*20.0*		*102*	*70-130*			
Surrogate: 4-BFB	*20.0*			"	*20.0*		*100*	*70-130*			
LCS Dup (3K19042-BSD1)											
Benzene	8.55	0.281	0.500	ug/l	10.0		85.5	80-120	4.68	20	
Chlorobenzene	9.13	0.136	0.500	"	10.0		91.3	77-120	1.84	20	
1,1-Dichloroethene	8.39	0.207	0.500	"	10.0		83.9	80-120	5.90	20	
Toluene	8.97	0.982	1.00	"	10.0		89.7	80-120	4.58	20	
Trichloroethene	8.66	0.264	0.500	"	10.0		86.6	80-120	7.56	20	
Surrogate: 1,2-DCA-d4	*20.4*			"	*20.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*20.6*			"	*20.0*		*103*	*70-130*			
Surrogate: 4-BFB	*18.9*			"	*20.0*		*94.5*	*70-130*			

Kennedy/Jenks Consultants
2001 32nd Ave S Ste 100
ederal Way, WA/USA 98001

Project: BNSF-Livingston, MT
Project Number: 026021.16
Project Manager: Sarah Kraja

Reported:
12/04/03 15:49

Notes and Definitions

	Estimated value. The reported value exceeds the calibration range of the analysis.
I	Estimated value.
-07	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
ET	Analyte DETECTED
D	Analyte NOT DETECTED at or above the reporting limit
R	Not Reported
y	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

orth Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John M. Clawson

hn Clawson, Project Manager

nca

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-9508	425-420-9200	FAX 420-9210	☑
11115 E Montgomery Suite B, Spokane, WA 99206-4776	509-924-9200	FAX 924-9290	☐
9405 SW Nimbus Ave, Beaverton, OR 97008-7132	503-906-9200	FAX 906-9210	☐
20332 Empire Ave Suite F-1, Bend, OR 99701-5711	541-383-9310	FAX 382-7588	☐
3209 Denali St, Anchorage, AK 99503-4030	907-334-9200	FAX 334-9210	☐

CHAIN OF CUSTODY REPORT

Work Order #: B3K0273

CLIENT: Kennedy / Jenks

REPORT TO: Sarah Kraja @ Kennedy Jenks

ADDRESS: 32001 32nd St. S Suite 100
Federal Way, WA

PHONE: 2538740555 FAX: 253 952 3435

INVOICE TO: BNSF

P.O. NUMBER:

PROJECT NAME: BNSF-Livingston, MT

PROJECT NUMBER: 026021.16

SAMPLED BY: SCK / GG

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [✓ 10] 7 5 4 3 2 1 <1 (STD. = 10)

Petroleum Hydrocarbon Analyses: 5 4 3 2 1 <1 (STD. = 5)

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: HCl (VOC 524.2), HCl (VOC 8260)

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOC 524.2	VOC 8260		Matrix spike & Matrix duplicate 8260	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	94-2	11/6/03 0950	X				W	3	25mL purge	01
2	90-3	11/6/03 1350		X			W	3	"	02
3	90-3d	11/6/03 1351		X			W	3	"	03
4	94-1	11/6/03 1535	X				W	3	"	04
5	92-1	11/7/03 0810		X			W	3	"	05
6	L-87-5	11/7/03 0905		X			W	3	"	06
7	89-3	11/7/03 1026		X			W	3	"	07
8	L-87-2	11/7/03 1145		X			W	3	"	08
9	89-4	11/7/03 1325		X			W	3	"	09
10	L-87-8	11/7/03 1420	X		LNAPL GLOBULES IN PURGE BUCKET		W	3	"	10

RELEASED BY:
PRINT NAME: GREG GERIKE FIRM: K/J DATE: 11-7-03 TIME: 1800

RECEIVED BY: Jenny Stalter
PRINT NAME: Jenny Stalter FIRM: NCA DATE: 11/10/03 TIME: 9:25

RELEASED BY:
PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

w/O TEMP: 4.7 PAGE OF

COC REV 1/03

nca

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-9508 425-420-9200 FAX 420-9210 ☑
11115 E Montgomery Suite B, Spokane, WA 99206-4776 509-924-9200 FAX 924-9290 ☐
9405 SW Nimbus Ave, Beaverton, OR 97008-7132 503-906-9200 FAX 906-9210 ☐
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3209 Denali St, Anchorage, AK 99503-4030 907-334-9200 FAX 334-9210 ☐

CHAIN OF CUSTODY REPORT

Work Order #: B3K0273

CLIENT: Kennedy/Jenks
REPORT TO: Sarah Krajo @ Kennedy/Jenks
ADDRESS: 32001 32nd St. S, Suite 100
Federal Way, WA
PHONE: 253 874 0555 FAX:
PROJECT NAME: BNSF - Livingston, MT
PROJECT NUMBER: 026021.16
SAMPLED BY: GG

INVOICE TO: BNSF
P.O. NUMBER:

TURNAROUND REQUEST
in Business Days *

Organic & Inorganic Analyses
[✓ 10 STD.] ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1

Petroleum Hydrocarbon Analyses
☐ 5 STD. ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ <1

☐ OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOC (8260)	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	L-88-10	11/7/03 1500	X	W	3	25mL purge	11
2	92-2	11/7/03 1555	X	W	3	"	~~12~~
3	92-2 MS	11/7/03 1555	X	W	3	"	~~13~~
4	92-2 MSD	11/7/03 1555	X	W	3	"	~~14~~
5	TRIP BLANK	—		W	2	—	~~15~~
6	TEMP BLANK	—		W	1	—	
7							
8							
9							
10							

GG 11/11
12
13

RELEASED BY: PRINT NAME: GREG GERIKE FIRM: K/J	DATE: 11-7-03 TIME: 1800	RECEIVED BY: PRINT NAME: FIRM:	DATE: 11/10/03 TIME: 9:25
RELEASED BY: PRINT NAME: FIRM:	DATE: TIME:	RECEIVED BY: PRINT NAME: FIRM:	DATE: TIME:

ADDITIONAL REMARKS: w/0

TEMP: 4.7

PAGE OF

COC REV 1/03